



The Resonator

Official Newsletter of The Fair Lawn (NJ) Amateur Radio Club

Volume 5, Number 6

www.FairLawnARC.org

June 2020

From The President:

Summer quickly approaches us and slowly but surely our State is getting ready to reopen to some of the daily activities we have been missing for the past months. As this transition begins, please continue to be safe and healthy.

Our club during this time has made sure to stay active and keep us all united. Our daily Health & Welfare and weekly Near & Far Nets, our Virtual "Kawfee Tawks," email groups and more are tools we always have to keep us close and continue to enjoy our hobby.

I trust that soon, we will all have the opportunity to join together face to face and get back to our usual gatherings at the Community Center, but making sure we do it in a safe manner, following the guidelines of local, state and federal agencies.

Field Day continues to be an important topic for many of us, and that weekend quickly approaches us. As we will not have Field Day the way we normally do this year, some have committed to operate from home and still have our club active.

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80+ NIGHTS AND COUNTING: FLARC CONTINUES NIGHTLY HEALTH AND WELFARE NET DURING COVID-19 CRISIS

In one of the first of its kind efforts in the nation, FLARC continues a nightly health and welfare net for its members and guests every night at 7PM on the FLARC repeater. A second repeater has been added to increase reach and participation.

The net welcomes everyone whether they are FLARC members or not. It is designed to keep in touch in these times of isolation and to pass along relevant information regarding the crisis and its impact on amateur radio. The club has received a number of kudos for its efforts and remains the only nightly net in the NNJ section of the Hudson Division.

Attendance continues to average close to twenty per evening, with some nights more. The net starts at 7 PM and accommodates everyone. Check-in's have come from Florida, upstate New York, southern New Jersey Florida, Puerto Rico and (beautiful) Lords Valley, Pennsylvania.

When does it end? That is not on anyone's calendar with the need to stay in touch and club members and with ongoing events.

A big TNX and tip of the red FLARC cap to Dave KD2MOB, Brian KD2KLN, and Nomar NP4H for taking on the bulk of the net control duties. As this net grows, it can always use more volunteers... contact any of the three to help.

Fellow FLARC Members,

As we all know, the coronavirus is top of the news and that the club is closed until further notice. Out of an overabundance of caution and our care for your safety, all FLARC events are postponed until further notice due to COVID-19.

We will monitor the situation with regards to re-opening the club and the use of both the Recreation and Senior Centers in coordination with the Borough.

Check in on our nightly health and welfare net on the W2NPT repeater at 7:00 PM and let us know how you're doing. You may be isolated at this time but you are not alone.

We want to continue to draw your attention to The Centers for Disease Control and Prevention (CDC)'s preventative measures to help ensure the health and safety of our members:

1. Avoid close contact with people who might be sick.
2. Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
3. Avoid touching your eyes, nose, and mouth.
4. Clean and disinfect frequently touched objects and surfaces.
5. Stay home when you are sick, except to get medical care.
6. Wash your hands often with soap and water for at least 20 seconds.

Some videos with important info about hand washing: CDC and WHO.

For further information and to keep up-to-date please visit the CDC website.

<https://www.cdc.gov>

Thank you for your attention and care. Stay safe.

73

Nomar NP4H
June 1, 2020

The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2020 Officers, Committees and Assignments

President	Nomar Vizcarrando	NP4H
Vice President	John L. Howard	W2JLH
Treasurer	Al Rasmussen	WA2OWL
Secretary	Randy Smith	WU2S
Trustee	Skip Barker	KD2BRV
Trustee	Ed Efchak	WX2R
Trustee	Don Cassarini	N2PRT
<i>Field Day</i>	Steve Wraga	WA2BYX
<i>Member Services</i>	Judith Shaw	KC2LTM
<i>Publicity</i>	Ed Efchak	WX2R
<i>Publicity</i>	Gene Ottenheimer	WO2W
<i>Publicity</i>	Judith Shaw	KC2LTM
<i>Publicity</i>	Susan Frank	W6SKT
<i>Program</i>	Lowell Vant Slot	W2DLT
<i>Publicity</i>	Karl Frank	W2KBF
<i>Publicity</i>	Nomar Vizcarrando <i>(ex officio)</i>	NP4H
<i>Social Media</i>	Dave Marotti	NK2Q
<i>Video/YouTube</i>	Thom Guida	W2NZ
<i>VE Liaison</i>	Gene Ottenheimer	WO2W
<i>VE Liaison</i>	Pete Senesi	KD2BMX
<i>Education</i>	Gordon Beattie	W2TTT
<i>Education</i>	Randy Smith	WU2S
<i>Education</i>	John L. Howard	K2JLH
<i>Education</i>	Fred Wawra	W2ABE
<i>History</i>	Fred Belghaus	W2AAB
<i>Health and Welfare</i>	Judith Shaw	KC2LTM
<i>Photographer</i>	Don Cassarini	N2PRT
<i>W2NPT Trustee</i>	Paul Cornett	W2IP
<i>Technical</i>	Paul Cornett	W2IP
<i>Technical</i>	Randy Smith	WU2S
<i>Technical</i>	Fred Wawra	W2ABE
RACES Director	Dave Gotlib	KD2MOB
RACES Liaison	Steve Wraga	WA2BYX
<i>Newsletter Editor</i>	Ed Efchak	WX2R
<i>FL Town Liaison</i>	Gene Ottenheimer	WO2W
<i>Net Scheduler</i>	Brian Cirulnick	KD2KLN
<i>Quartermaster</i>	Brian Cirulnick	KD2KLN

Fair Lawn RACES/ARES Corner



June is here and so is the unofficial start of summer -- until June 20th when summer is official!! Warmer weather usually gives us additional outdoor activities, however this year has been different than all other years due to COVID-19. Instead, we've increased our messaging skills and we plan to continue to get better and stronger at messaging. I'd like to thank Hank WA2CCN and Karl W2KBF for leading these messaging discussions.

Please note the new time of the FL-ARES KB2FLA Nets. They are now taking place on Wednesdays at 1830 hours on the FLARC and NJ2BS Repeaters. Please join us every Wednesday for any updates, messages or activities which may take place.

You may or may not be aware that the W2NPT Repeater is now linked to the NJ2BS Repeater through KD2BKD-L on Echolink. With the new link, our footprint in Bergen County as well as the surrounding area on the 2 meter band has expanded! A special thanks goes out to Gordon W2TTT who owns the NJ2BS Repeater and Bob KD2BKD for linking the repeaters. Also, a thank you goes to Paul W2IP for making it happen on the W2NPT end.

The Fair Lawn ARC Repeater info is: RX 145.47 MHz / TX 144.87, PL Tone 167.9 Hz. Echolink W2NPT-R. The NJ2BS Repeater info is: RX 146.835 MHz / TX 146.235, PL Tone 151.4 Hz. Echolink KD2BKD-L.

FL-ARES would like to thank the FLARC for the use of its repeater as well as the Venture Crew 73 73 Club for the use of their repeater.

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MASTER EVENT CALENDAR

**Out of an overabundance of caution and our care for your safety, (not to mention state law)
all FLARC events are postponed or rescheduled until further notice due to COVID-19.**

- June 19, 2020 Kawfee Talk Bob Holstrom KD2BKD "DMR Basics" (Zoom)
- June 27-28, 2020 ARRL FIELD DAY – Memorial Park (**On Your Own**)
- July 17, 2020 Kawfee Talk: Charlie AC2ZU "Nikola Tesla" (Zoom)
- August 21, 2020 FLARC 3rd Annual Vintage Night – Senior Center (**Tentative**)
- September 18, 2020 Lowell Van't Slot W2DLT "Working the CQWW SSB Contest At A Caribbean Superstation" – (**Tentative**)
- October 16, 2020 Hal Kennedy N4GG "Spark At FLARC" Via Skype (**Tentative**)
- October 18, 2020 Fair Lawn Fall Street Fair (River Road) (**Tentative**)
- December 18, 2020 Kawfee Talk: Ria Jairam N2RJ "The State Of The ARRL At Year End"
- TBD Return Visit To iHeartRadio/WSUS transmitter
- TBD Field Trip to Sarnoff Center, Princeton
- ** 2nd Friday of month



Hidetsugu Yagi's 130th Birthday Google Doodle

FLARC VEC Exams

All FLARC events are postponed or rescheduled until further notice due to COVID-19.

Our next test sessions are scheduled **TBD** beginning at 09:00 at the Community Center. No advanced registration is required but always appreciated. The fee is \$15.00 (cash or check).

Please bring positive identification (license, passport, etc.), your original license and a copy, original CSCE and a copy (if credit is needed).

The full exam schedule is on the club calendar at the FairLawnARC.org website. For further information contact VE-Liason@FairLawnARC.org.

Please refer also to the "License Exams" link on the main website--

<http://bit.ly/FLARC-Testing>

Follow FLARC ON THE WEB

Facebook: <http://facebook.FairLawnARC.org>

Twitter: @FairLawnARC

Blog: <http://blog.FairLawnARC.org>

Youtube: <http://youtube.FairLawnARC.org>

Website: <http://FairLawnARC.org>

Interested in Chasing DX?

A casual group of FLARCers including Van W2DLT, John KD2NRS, Brad KM2C, Karl W2KBF, Nomar NP4H, Steve WI2W, Jim W2JC, Larry WA2ALY and Fred W2AAB have formed an email group to keep each other in touch in (real) time of when the rare or interesting ones show up to chase.

Interested? See or contact Van W2DLT.

Answer The Census!

You'll be required by law to complete your US Census form. The club is an active sponsor of Fair Lawn's Complete Count 2020 initiative, so your support is important. So far the response rate for Fair Lawn is approaching 77%; ahead of projections.



Equipment Problem?

If you encounter a piece of club equipment, instrument or tool that is not working correctly or is broken in any way, we now have a Trouble Report form that you can use to describe the problem and report it to the Technical Committee -- who will arrange for repair.

The form can be found on the literature rack across from Position 2.

2020 -- The Year of Learning!



Brad KM2C talks through the Flex equipment to kick off the Year of Learning back on January 10th

Please Note: Operating at W2NPT

Starting in January 2019 club trustees have sign-in sheets for all operating positions. There is a clipboard at Operating Position #1, #2 (digital) and #4 with a form on which to sign up for half-hour time slots. No longer first come-first served, in fairness to all who want to use our club equipment and the new antennas.

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

<http://apparel.FairLawnARC.org>
<http://auction.FairLawnARC.org>
<http://blog.FairLawnARC.org>
<http://calendar.FairLawnARC.org>
<http://events.FairLawnARC.org>
<http://exams.FairLawnARC.org>
<http://facebook.FairLawnARC.org>
<http://news.FairLawnARC.org>
<http://swap.FairLawnARC.org>
<http://tech.FairLawnARC.org>
<http://youtube.FairLawnARC.org>

NEW !

<https://groups.io/g/FairLawnARC>



May 2020 Blog Traffic

With coronavirus dominating the news, both visitors and page views to the blog were down this month. We've also done more email communications to members.

	May 2020	May 2019	% Change
Views	355	603	-41%
Visitors	139	287	-52%
Posts	4	13	-69%

There is new content nearly every day so it's really worth the look at both FairLawnARC.org and the blog.

<http://blog.FairLawnARC.org>

Member Profile

NAME: Charles M. Cebula (aka Charlie)
CALL: AC2ZU (Previously WB2KYT in the 1960s)

What do you do/what did you do for a living?

I retired from prior employment shown below, but now Adjunct Assistant Instructor in STEM Department at Ocean College, Toms River (2013-Present). Teach Math and Engineering courses in the STEM Department. I worked at Ft. Monmouth, NJ for the US Army as an Electronics Engineer (Civilian) involved with Army Command, Control and Communications Systems (1972-2009).

After retirement in 2009 from Ft. Monmouth, worked as an Electrical Engineer for Computer Science Corp in support to the Navy on a portable CREW Jammer to prevent detonation of enemy IEDs. Work involved Reliability, Maintainability and Logistics areas. Upon completion of this task I was assigned to develop and plan the source selection program for the Army's follow-on to the Fire Finder Radar, a major counterfire radar system. That task ended in 2011, when the Ft. Monmouth organization moved to Aberdeen MD.

In addition to my Ft. Monmouth employment I concurrently served as an Adjunct Instructor in the Electrical and Computer Engineering Dept at New Jersey Institute of Technology (NJIT) from 1982-2009. I taught courses in both Electrical Engineering and Electrical Engineering Technology.

How did you get interested in ham radio?

My original interest began at 13 when my dad introduced me to a fellow worker, Dick O'Brien (WA2KMO). I always had an interest in Electronics since my Uncle was an Electrical Engineer. Dick showed me his Collins S-Line Receiver and Transmitter, 1KW Linear Amp and Tri-Band Beam. That sparked my interest and I pursued my study of theory and code and took my Novice with W2GC (Al Sohn).

I subsequently went to the FCC in NYC and received my General ticket. It took me two times to pass 13 WPM. Very memorable times. My first transmitter was a CW rig purchased from W2GC for \$35 with a bunch of crystals and coils for 80, 40,20 and 15 meters.

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Amateur Radio Operating Course by The Amateur Radio Club of the National Electronics Museum via Zoom

While not a FLARC event, the above group is offering a series of courses on Thursday evenings from 6:30 to 9:30 pm, running weekly. There is no charge for attendance. Here is their program:

May 7	VHF/UHF Weak Signal Work Brian Skutt, N3IQ
May 14	Remote Station control over internet Ike Lawton, W3IKE
May 21	Digital Modes Alan Zimmerman, KM4MD
	Imaging Operating Mike Birdseye, K4DUM
May 28	Contesting Dan Zeitlin, K2YWE
	Logging Software Rol Anders, K3RA
June 4	Propagation Frank Donovan, W3LPL
June 11	Amateur Satellites Glenn Long, KC4KMY
	Portable (backpacking) operation Tom Jerardi, K3CXW Paul Stoetzer, N8HM
Jun 18	Disaster, Public Service, EMCOMM, and Traffic Handling Dave Prestel, W8AJR Andy Protigal, N3AWP
June 25	Setting Up an HF Station Alan Zimmerman, KM4MD

If you're interested, send an e-mail to Rol K3RA
roland.anders@comcast.net
[<roland.anders@comcast.net>](mailto:roland.anders@comcast.net)

Note: This is for information only and not an endorsement by the club.

FLARC Video *Kawfee Tawk* Series Begins With 73 Attendees at 6 Meter Propagation Discussion

The FLARC monthly Speaker Series easily transitioned on May 8th to a new series of video presentations under the *Kawfee Tawk* moniker.



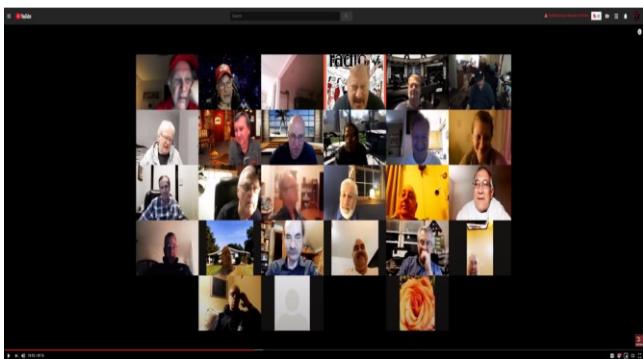
Kicking off the video series was Bob N2SU with a marvelous presentation on 6 meter basics and operation. A total of 73 members and guests joined in from across the country, adding to the excitement of the evening.

Bob is a dynamic presenter with quality content and the comments afterwards were a reflection of his hard work and preparation. Bob talked about propagation characteristics and what to listen for, band plans, operating techniques, antennas and how the activity on the band has changed and evolved in the last 50 years.

The event, live-streamed on Zoom, was also recorded by Thom W2NZ for later distribution as part of our ever-growing YouTube channel.

The series continues on June 19th with Bob Holstrom KD2BKD doing an overview on DMR (see an accompanying story).

The N2SU event was promoted on *QRZ* and received over 800 inquiries and comments from many hams who know Bob over the years and wanted to wish him well and/or check in.



Screen shot of N2SU's Zoom presentation on May 8th.

Club Apparel — Get Them While They're RED!

Club apparel is always in vogue. Red is always "in" and your club friends all have them... you want a shirt or jacket for the next FLARC event! Great for Field Day!

Don't forget.... they're easy to order.
Go to www.hamthreads.com
or visit <http://apparel.FairLawnARC.org>

Check out the item selection that is posted on the FLARC website (with pictures and prices). Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo. Note: **RED** is the primary and preferred club standard shirt color.

And why not WEAR your nice red shirt when you come to the club, especially for meetings and events.



Gene WO2W

2020 FLARC Speaker Series Locations:

SPEAKERS WHO ARE FLARC MEMBERS:

FLARC CLUBHOUSE

[when it re-opens]

2020 MEMBER DUES DEADLINE ENDS JUNE 31ST

Given the current coronavirus situation, the FLARC Council has agreed to extend the deadline for 2020 member dues from March 31st until June 31st. The Council has recognized that members might have wanted to pay in-person at the Club prior to deadline or may require more time to pay given the disruption of jobs and/or work schedules.

Annual dues remain at \$25 and can be sent via mail to the clubhouse at 10-10 20th Street, Fair Lawn, NJ 07410. Mail is being collected on a less frequent basis. Make all checks payable to "Fair Lawn Amateur Radio Club". New member dues are \$20 and an application can be found at the club's website, www.FairLawnARC.org. Any questions can be directed to either Nomar NP4H (President) or Al WA2OWL (Treasurer).

BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such as gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. **The club is sponsored by the Borough of Fair Lawn.** The club meets every Friday at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM [on Zoom for now].

Visitors **ARE ALWAYS** welcome at our meetings.

FLARC operates the W2NPT repeater (145.470- PL 167.9) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has over one hundred & fifty paid members. Dues are currently \$25 per year/\$20 for new members.

For more information, please see our website, at
<http://membership.FairLawnARC.org>

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"POP-UP TUESDAYS" WILL BE BACK IN A WHILE!

Check the club calendar, the club website and your email each week to check when we will resume.

PUBLICITY COMMITTEE NEWS

The Publicity Committee is seeking new members to help grow the club with its varied activities. Enthusiasm desired... no experience necessary. Contact Ed WX2R or any other committee member.



FAIR LAWN'S COMMUNICATIONS CENTER! With New Antennas On The Roof!



2020 Near and Far Net Check-In's

Now in its third year, the FLARC *Near and Far* net is chugging along each week. Here is list of our check-ins beginning on New Year's Night in no particular order. Mondays at 8PM on the repeater.

Call	Name
N2AAM	Dave
WO2W	Gene
W2DLT	Van
KD2MOB	Dave
W2JC	Jim
WI2W	Steve
N2SU	Bob
N2OEL	Noel
WX2R	Ed
W2AAB	Fred
KD2KLN	Brian
W2MSA	Noel
W2KBF	Karl
AC2ZU	Charlie
W3EH	George
KC2TBD	Ron
TG9AOR	Joe
N2OEL	Noel
N2JLF	Jim
W2TAB	Tom
KC2TBD	Ron
KA2YRA	Steve
WA2BYX	Steve
KD2BKD	Bob
KC2K	Stan
KA2YRA	Steve
WA2CCN	Hank
W2TTT	Gordon
NJ8Y	Ahmed
NJ2BK	Bruce
W2CQX	Dan
W2KNG	Jim
WK2T	Lee
W2NZ	Thom
K2PD	Don
KD2JIP	Dave
K2ZVL	Van
KC2ASA	Peter
W2AAB	Fred
KD2LRX	Jason

2019-20 Member Profiles

The year is now complete and here is a list of the 2019 monthly profiles. See past profiles elsewhere in *The Resonator* to check back in the archives to see each featured member's background.

Month	Name	Call Sign
January 2019	Dave	KD2JIP
February	Jim	K2ZO
March	Zach	KC2RSS
April	Bob	N2SU
May	Stan	KC2K
June	Steve	WA2BYX
July	Roger	K2RRB
August	Judith	KC2LTM
September	Chris	W2TU
October	Bob	N2SU
November	Bob	WA2ISE
December	Carol	KD2NMV
January 2020	Gordon	W2TTT
February	Chris	KD2JQZ
March	Glenn	KD2MDR
April	Steve	K2SAB
May	Ahmed	NJ8Y
June	Charlie	AC2ZU

Congratulations!

The May VE testing session was cancelled due to the coronavirus pandemic. So ... no test session results.

Name	Call	New License
No activity		



Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	Pete	KB2BMX
February	Marco	KC2ZMA
March	Ron	KC2TBD
April	Kai	K2TRW
May	Larry	WA2ALY
June	Dave	N8MAR
July	Steve	WI2W
August	Thom	W2NZ
September	Brian	KD2KLN
October	Brad	KM2C
November	Al	WA2OWL
December	George	W3EH
January 2017	Fred	W2ABE
February	Dave	KD2MOB
March	Randy	WU2S
April	Lee	KD2DRS
May	Gene	WO2W
June	Carol	KD2NMV
July	Kevin	KC2KCC
August	Robert	KD2NOG
September	Robert	KD2BKD
October	John	KD2NRS
November	Fred	W2AAB
December	Margaret	W2GB
January 2018	Brian	KD2OAZ
February	Bennett	KO2OK
March	Van	W2DLT
April	Aly	ALØY
May	Bruce	NJ2BK
June	Dave	N2AAM
July	Karl and Susan	W2KBF and W2SKT
August	Steve	KA2YRA
September	Paul	K2PJC
October	Skip	KD2BRV
November	Jim	W2JC
December	Tom	N2AAX

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!

Blood Donors Needed In This Time Of Emergency

The Red Cross and related organizations are in great need for blood donations since most corporate blood drives have been cancelled.

Communitybloodservices.com has a network of offices open during the week and would really welcome folks making appointments to donate blood.

Thanks!



**American
Red Cross**

NOW AVAILABLE FREE TO FLARC MEMBERS:

In December and January nearly 120 FLARC members took part in the annual member survey. One of the survey questions asked about your interests in ham radio—specifically what **you** wanted to learn more about.

A composite list of all 26 content-specific interests cross-referenced by member call sign has been created and is available to you just for the asking. It's a quick way to find out who in the club has similar interests to yours and to simplify who to look for when you have a question on a specific subject.

A first group has formed from this interest list — see the story elsewhere in The Resonator.

Just drop an email to wx2r@arrl.net and type the word "survey" in the *Subject* box... he will send it back directly to you ASAP.

Member Profile, cont'd.

I bought my first Hallicrafters receiver at Lafayette Radio in Newark, NJ and built an 80 Meter dipole that I strung in my back yard in Newark. Shortly afterwards I purchased a DX-40 to allow me to do some AM work. Finally replaced the DX-40 with a used Johnson Viking 2 (2- 6146's). I did get the WAS certificate during this time. As I proceeded to college at Newark College of Engineering in 1967 I no longer had time and I let my license lapse. Now I would like to get started again in Ham Radio.

What parts of the hobby most interest you?

I particularly like HF to include SSB and CW.

How did you first find out about FLARC?

What are your impressions of the club?

With my wife's passing (early 2019) I have been going back and forth from Toms River to Orangeburg NY (i.e. Pearl River) to help my daughter with the grandkids. I have gained a renewed interest in Ham Radio. I found out about the club from my cousin's husband, Paul Spivack (NA2PS). He is a member of the Nutley Amateur Radio Club and now a member of FLARC. I took both the Technician and General Class tests at the same time at the KC in North Arlington (Nutley VE center). I missed the Extra by one question. After taking it, I realized that FLARC offered testing on a Saturday, which is normally when I return to Toms River. I took the Extra in Early Dec and passed.

I am truly impressed with the camaraderie and professionalization of the members of FLARC. I know the club is blessed with great interest and knowledge and is invaluable to me and many others. I have been to a couple of meetings and everyone seems to be cordial, sharing and having fun. The rigs and work area in the club are also impressive. I am happy to be part of the club.

Continued on next page

Looking To Upgrade Your License? Here Are Some Classes To Help!

Here is the summary of classes offered by our friends at the ARC² Radio Club during 2020. [Dates are dependent on end of current emergency.]

General License Radio Class

September 19, Saturday, 8 am to 4:30 pm
September 20, Sunday, 8:30 am to 3 pm

Technician License Radio Class

November 21, Saturday, 8 am to 4 pm
November 22, Sunday, 9 am to 3 pm

Location:

**Fairfield Red Cross Office
209 Fairfield Road, Fairfield, NJ 07004**

Instructor: Bill Kelly
NB1LL.ARC2@gmail.com
201.615.8132

CHECK WITH BILL ON COURSE STATUS

June 2020 Near and Far

Net Controls

Here is the roster for net controls for the upcoming month as reported by Brian KD2KLN:

Date	Net Control
June 1	KD2MOB
June 8	NP4H
June 15	KD2KLN
June 22	TBD
June 29	N2AAM

The Near and Far Net now averages close to 20 check-ins on an average week! Cool beans.

But we need more volunteers to be net controls - if everyone takes their turn it's less burden on the others. And it's easy.

Volunteer --- don't wait to be asked (unless you really want to be flattered).

Member Profile, cont'd.

What else can you tell the club about yourself and/or ham radio?

Prior to my marriage, I lived in Newark, NJ and obtained all my education in Newark, NJ:

- Essex Catholic High School
- Newark College of Engineering (BSEE) and NJIT (MSEE)

Besides teaching I like to play golf, bowl and go on vacations, including land - based and cruises.

What other ham related clubs or organizations do you belong to?

I am a member of ARRL.

Other clubs and organizations include:

- Elks Member – Lodge 1875 (Toms River)
- Chair – NJIT Central Jersey Alumni Regional Club



Charlie AC2ZU

Ham Radio Is Contagious And It Won't Make You Sick!!

FLARC Gets Featured In The Record/northjersey.com

The club's efforts with it's first in the nation *Health and Welfare Net* was recognized with a story in *The Record*, *northjersey.com* and *Community News* the week of May 5th.

The nightly net has been recognized also with mentions on QRZ, Ham Nation, and the ICQ podcast n the United Kingdom. A thanks to Ron KC2TBD for first suggesting it. (Check out the frequency on the HT).

Local ham radio operators are meeting daily - on the air

Members of the Fair Lawn Amateur Radio Club (FLARC) have overcome the social separation issue imposed during the coronavirus, by meeting nightly using their radios. They gather using a radio repeater located atop the Fair Lawn Community Center allowing them to share time together on a wide variety of topics, covering the Bergen County area and beyond.

The "on the air" meetings vary in size but usually include some 20 to 30 participants who "check in" through a central network control operator and then take turns sharing information. Topics can be anything from "what I'm doing today" to member information, posing technical questions, commenting on a good book to read, TV show or movie to watch, trivia questions, sharing info on lines and the availability of items at local supermarkets, phone numbers of service providers for seniors, or one might just say nothing while listening and monitoring the conversation. All in all, nearly 300 different operators have participated since the program began nearly three weeks ago. The club has also partnered with the Venture Crew 7373 Amateur Radio Club linking its radio repeater to expand geographic coverage in the North Jersey area.

Using home stations, mobile radios or even hand-held walkie-talkies, operators are free to join the group while walking the dog, running an errand or relaxing in their homes. Participating hams have called in from across Bergen and Passaic counties as well as upstate New York, Long Island, southern New Jersey, Pennsylvania, Florida and Puerto Rico using voice-over-internet technology.

FLARC Club President Nomar Vizcarondo of Englewood, FCC Call sign NPAH, wryly observed that hams are using their FCC allocated Two Meter ham band to come together, noting that two meters is approximately six feet, which is the minimum distance we are supposed to stay away from one another.



Handheld amateur radio. COURTESY OF THE FAIR LAWN AMATEUR RADIO CLUB

The daily gatherings are hosted by volunteer coordinators, some of which include Dave Gottlieb, KD2MOB of Fair Lawn, Brian Carulnick, KD2KLN of Belleville, Vizcarondo and others when necessary.

In addition to the lively banter, the operators are also honing their skills in case they're needed to assist others in a time of emergency. But in the near term, amateur radio provides a means to escape the barriers of sheltering in place, linking with others, sharing experiences and being social without the need to gather in person.

An FCC Amateur Radio license is required to transmit but those with scanner radios can listen in on 145.470 MHz every night at 7 p.m. Information on obtaining a ham radio license can be found at www.FairLawnARC.org or www.arrl.org.

Fair Lawn Community Life May 7, 2020.

**Bob Holstrom KD2BKD
To Showcase DMR Radio As FLARC
“Kawfee Tawk” Series Continues
June 19th**

The Fair Lawn (NJ) Amateur Radio Club will host its next monthly video “Kawfee Tawk” program – about Digital Mobile Radio (DMR), a powerful system for linking the worlds of amateur radio and the Internet.

**This video program will be held on Friday, June 19th
beginning at 7:30 PM EDT (2330 UTC).**

The topic will be “DMR Radios and Programming” and will be presented by Bob Holstrom KD2BKD, a FLARC member. With DMR you can link your handheld radio to repeaters, individuals, or talk groups located anywhere in the world, quickly and easily. And because it's all digital, you get crystal-clear sound.

The presentation will be on the basics of DMR Radios and will include what repeater information is needed to program a DMR radio channel – with demonstrations for TYT MD-380 and AnyTone AT-D878UV radios.

The program will last about an hour and will include an opportunity for questions and comments.

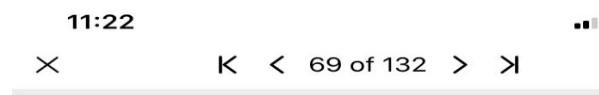
Bob works in the electronics engineering industry as an audio test engineer. He was first licensed in January 2012 and upgraded to General shortly after. His present primary interest is VHF / UHF radio and he especially likes to get out to rove the VHF contests. He has been actively involved in DMR for the last three years.



Bob KD2BKD

**FLARC Gets A Nice Mention In
June QST For Health and Welfare Net**

The club received a nice mention from Rick Palm K1CE Public Service editor in June *QST* for its first-in-the-nation coronavirus net response. This, coupled with mentions in *QRZ*, *ICQ Podcast*, an interview with Ed WX2R on the April 15th edition of *Ham Nation* and local news media mentions has garnered us national attention.



In the April column, when I wrote about a simulated emergency exercise involving an epidemic caused by a virus, I didn't imagine I'd be writing about a real virus just a few months later. In this month's column, I'll share some actions we can take against elevated risk and morale deficits in the context of a pandemic, such as COVID-19.

**Social Distancing Doesn't
Have to Mean Isolation**

Social distancing is part of being a radio amateur: we can talk by radio instead of in person. ARRL Northern New Jersey Section Public Information Coordinator Ed Efchak, WX2R, reported that the Fair Lawn Amateur Radio Club (FLARC), a 60-year-old public service-oriented club, is holding a nightly health and welfare net for the duration of the COVID-19 outbreak. The net is self-directed and all amateurs are welcome to check in, stay in touch, and pass along information. John Bloodgood, KD0SFY, Emergency Coordinator and Public Information Officer for Pikes Peak ARES® (Amateur Radio Emergency Service) in Colorado, said that prior to the state's governor issuing a state-wide stay-at-home order, Pikes Peak ARES began hosting a similar daily health and welfare net with the same mission.

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A Piece Of Early FLARC History Resurfaces

No one knows exactly how long Capt. Larry WA2ALY has been teaching Code, but an oil painting recently discovered in the archives of Princeton University turns back the pages of history. This painting by Gilbert Stuart, dated 1777, shows a youthful Capt. Larry (before he obtained a radio license) instructing a member of the New Jersey Colonial Regiment in the use of his new invention, which he called a "Como se llama?". The "Como se llama?" was cutting edge technology at the time but was not widely adopted by the Colonial Army due to the need to rototill each campsite for the installation of 120 radial wires. It was not until the mid-1800s that Samuel F.B. Morse introduced the use of a two-wire pair, greatly simplifying the installation, and renamed it the telegraph.



Earliest known image of Captain Larry (L) with NJ colonial soldier (circa 1777)

What A Club!! FLARC Membership Renewals Exceed 2019 Levels

As the extended 2020 club membership year comes to an end, a milestone has been reached.

As of May 31st, a record number of members have chosen to renew. The paid member count now stands at **150+**.

For perspective, the total number of members going into 2019 was 145 so this is a true vote of confidence in the club. We'll have the final total next month.

Member renewal rates are also at a record. So far, 91% of our roster of 167 has renewed compared with 84% in 2019.

Thanks to everyone for their support of the club!

Field Days Past: 2019



What a difference a year makes!

We appreciate your support of the Fair Lawn Amateur Radio Club!

This is your Club! Be part of it!

The FLARC Spring Member Survey

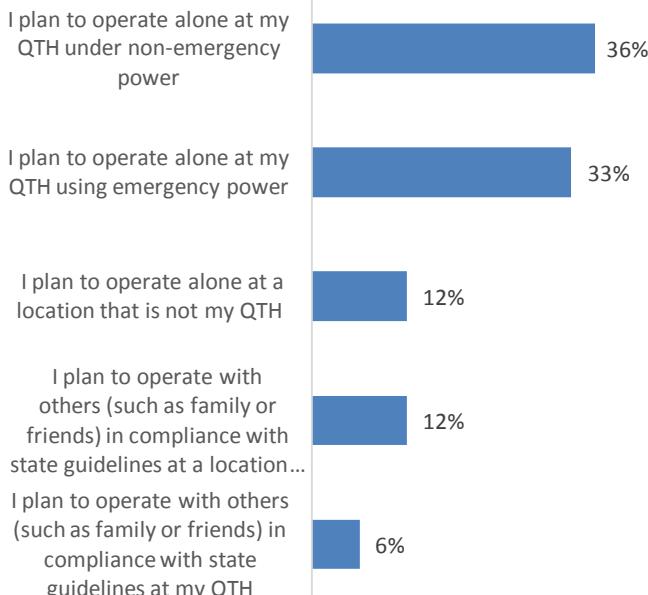
A total of 82 FLARC members took part in this brief survey in late May. Thanks to all who participated!

2020 Field Day Participation

About four in ten (43%) of survey respondents will participate in some way for this year's Field Day. One in three (33%) said they didn't know what they were going to do and one in four (23%) said that they would not participate.

Of those who planned to participate:

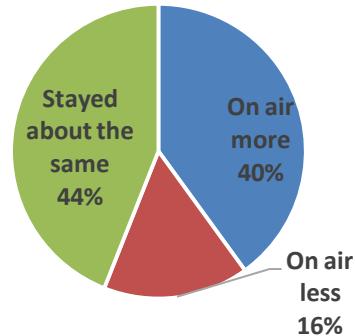
Field Day Plans



Operating During The Lockdown

Time locked away at home translated into more time on the air by FLARC survey respondents.

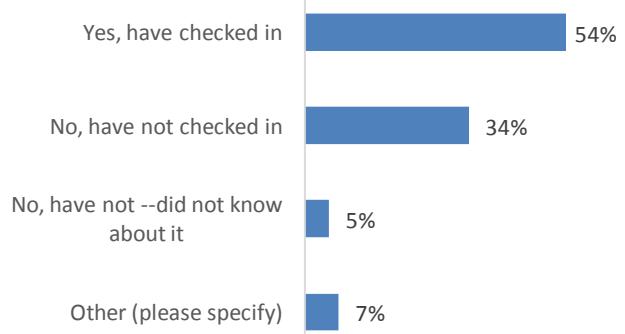
Time On Air During Lockdown



Check-ins To The Health and Welfare Net

More than half of survey respondents claimed to have checked into the nightly net since its inception.

H&W Check-In



"Kawfee Tawk" Video Series Brings Out Volunteers To Continue To Expand The Program

A thanks to 19 (so far) members who have offered to be video presenters to continue the monthly series... that's enough to take us almost through 2021!!

Thanks so much!! John and Nomar will be reaching out to you. Any others?? See them!!

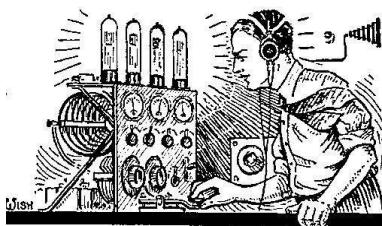


Image from May, 1926 QST, courtesy ARRL

The Way We Were -- By Fred Belghaus W2AAB

When Broadcast Stations Had "Ham" Call Letters - Part 2

This month, we continue our study of some early shortwave "experimental" broadcasting stations, whose original call letters were similar to amateur stations. As was stated in last month's column, these stations were first assigned "experimental" calls because the high frequency (shortwave) bands were still a new and relatively mysterious part of the radio spectrum.

Our first story begins in 1921, with the establishment of the Crosley Radio Co., founded by Powell Crosley, of Cincinnati, Ohio. In that year, Crosley became licensed with the amateur call 8CR. [1] But Crosley wasn't much interested in "ragchewing" with other amateur stations. He had other ideas. He began by manufacturing cheap crystal sets, later creating the "Crosley Pup" in 1925. [2] The "Pup" was a simple, one tube regenerative receiver that sold for just under \$10.00. Its advertising included a small pup named "Bonzo."



Image: Antique Radio Classified, See Note [3]

The manufacturer suggested tube was a WD-12, a basic triode, but some owners swapped an RCA UV-201A or Cunningham CX-301A in its place. These receivers are now very rare because at its original sale price, very few were saved after they failed. Today, Crosley "Pups" are selling for hundreds of dollars to collectors.

Crosley would go on to manufacture many more models until 1956. The company name was later purchased by others, and under that name radios, turntables and jukeboxes are still manufactured, but headquartered in Louisville, Kentucky. [4]

But broadcasting was of much greater interest to Crosley. His first commercial station was WLW in Cincinnati, which came on the air in May, 1922, originally running only 50 Watts from the Crosley radio factory on Blue Rock Street. By 1925, the station power was increased to 5,000 Watts, using a Western Electric transmitter. In 1928, Crosley purchased station WSAI, and moved the WLW transmitter site, sharing it with the WSAI facility in Mason, Ohio. By October of that year, WLW's new 50,000 Watt transmitter was installed and operational at the Mason site. They were only the fourth U.S. broadcaster to run that much power. [5]

In 1933, it was announced that RCA had been contracted to construct a 500 Kilowatt broadcast transmitter. This disturbed Crosley, and he shortly thereafter applied for a new "super power" station license, permitting a 500 Kilowatt amplifier to be added to their 50 Kilowatt station at Mason, Ohio. The Construction Permit was approved, and Crosley spent a half million dollars to build the complex for this station (equal to about \$10 Million today). The station went fully operational in 1934, the "big switch" activating the half Megawatt transmitter thrown remotely by President Franklin Roosevelt. But complaints poured in from other domestic stations, including station CRFB in Ontario. WLW then was forced to build two additional, smaller towers in order to create a directional pattern that protected the signal of the Canadian station. [6]

But because of the real possibility of further interference, and the complaints of other stations, a Congressional resolution was passed in 1938 proposing limiting the power of AM broadcasters to 50 Kilowatts. Though this resolution was not legally binding, in 1939 the F.C.C. changed its regulations to make this power limit part of radio law. Attempts by WLW to challenge this ruling were unsuccessful, and the 50 kW power limit has remained in effect ever since. After that ruling, there were only brief test transmissions made from station W8XO, an experimental shortwave station also operated by Crosley at that time, until it ceased broadcasting in 1942. [7] But sometime in the 1930s (no definite date can be established), Crosley operated W8XAL on shortwave. Here's an early letter type confirmation from this station:

POWEL CROSLEY, JR.
PRESIDENT

CROSLEY

CABLE ADDRESS
"LISTENIN"

THE CROSLEY RADIO CORPORATION

Mr. Rl Lawton
10 Dalton Ave.
Thatch Beach Lane
Whitefield,
Manchester, England.

CINCINNATI

Dear ~~Mr.~~ Listener:
W8XAL

In order to assist you in verifying the reception of Station WLW we are pleased to inform you that this letter confirms your account of our program.

Radio Broadcasting is a calling all of its own bringing into play a tremendous assortment of talents. One minute a newspaper man reports on important phases of live news; the next finds us deep in the score of some famous opera; the next, in the lighter patter from some song and dance show. Nearly every day brings new demands for versatility through the new medium of ear entertainment.

The guiding influence of all our programs is what listeners say and what they write. No mail coming into our offices has more careful consideration or is more appreciated than the letters from our audience. These letters are passed to the program director, the continuity writers and the musical staff and are read carefully by them.

You might not consider your individual comments of our programs important, but we do. So when you have anything to suggest -- how any detail can be improved -- won't you write us? We want our audience to know in advance that these comments are, and will continue to be, greatly appreciated.

Yours very truly,

THE CROSLEY RADIO CORPORATION

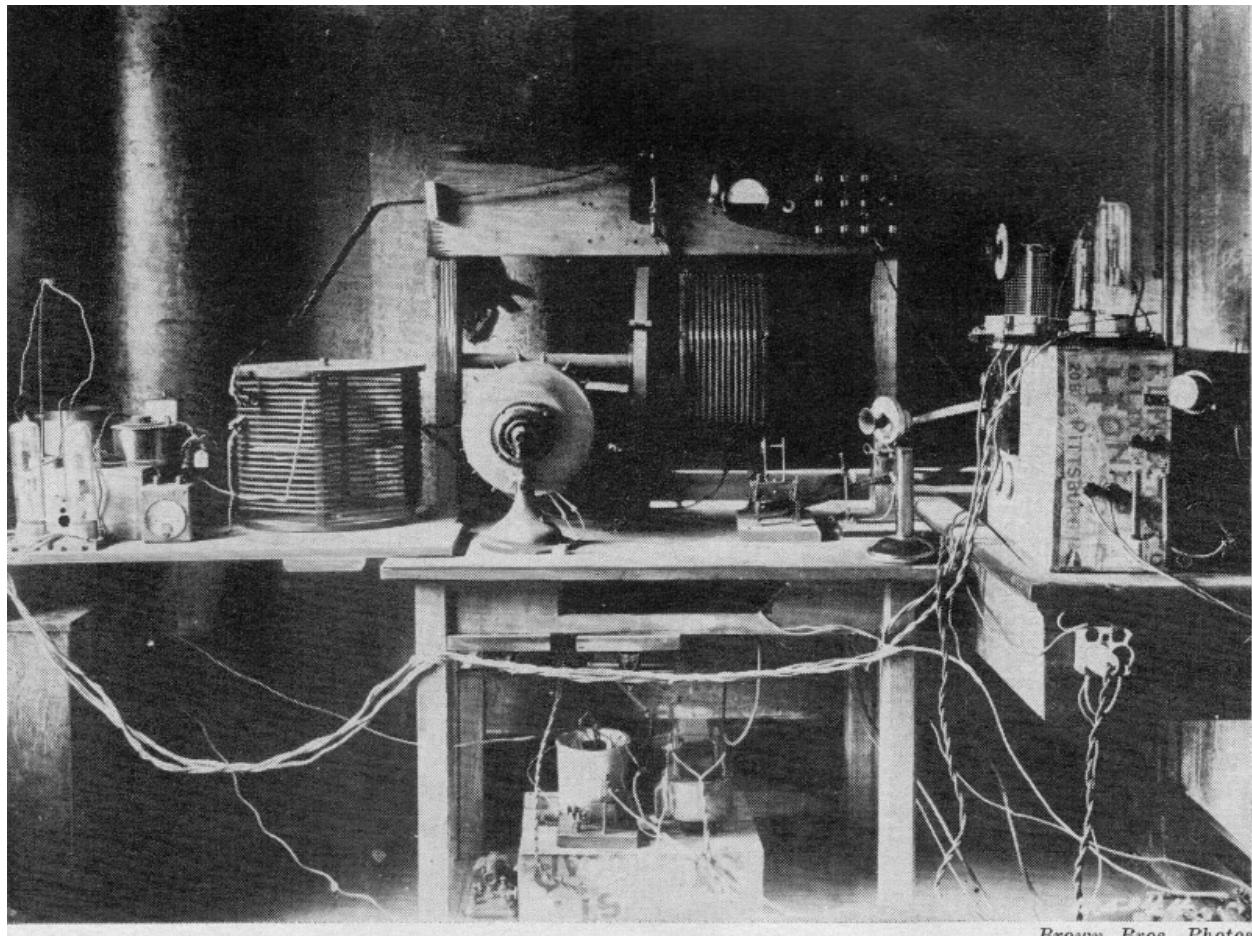
John L. Clark
General Manager
Stations WLW -- WSAI--W8XAL.

Station WLW 50,000 Watts - 700 Kilocycles
Station WSAI 500 Watts - 1330 Kilocycles

THE HOME OF WLW

All this was to change in 1940, when the call W8XAL was changed to WLWO [8] – which shortly thereafter became one of the domestic transmitters for the Voice of America. The call W8XAL is now held by an amateur station in Colorado. [9]

One of the most famous calls in radio history is KDKA in Pittsburgh, Pennsylvania. This station began life as the amateur station of Dr. Frank Conrad, under the call 8XK in 1919.



Brown Bros. Photos

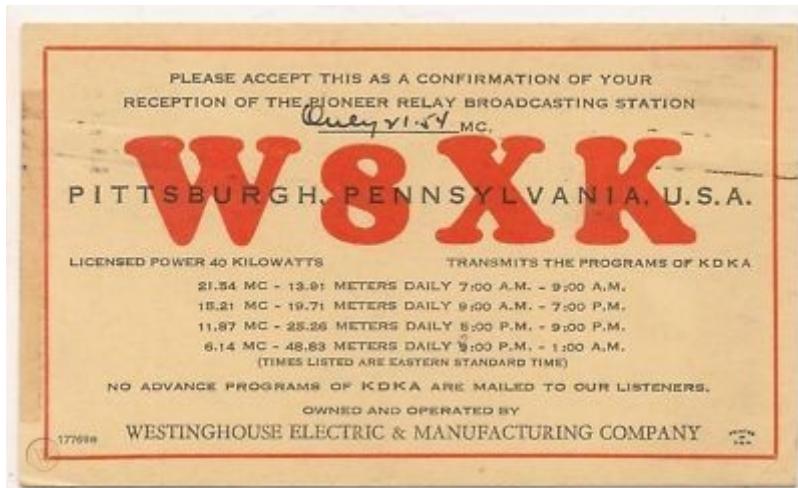
Dr. Conrad's station, 8XK, ca. 1920

Image: Wikipedia

Conrad was interested in what was then called “radiophone.” He began experimenting with this new development in radio, playing phonograph records over his station as entertainment for local amateur stations. The popularity of these transmissions led him to establish a regular schedule of broadcasts on Wednesdays and Saturdays. Once he had played through all his records, he made a deal with the local dealer in Brunswick Records to supply him with additional selections, and later added live performances by local musicians and members of his family. [10]

In 1920, the A.R.R.L. had set up a program for amateurs to report results of the Presidential election on November 2nd of that year. One of the stations chosen to participate was Conrad's 8XK. But on the same day, Westinghouse decided to enter the broadcasting field and cover the election results. Conrad decided to support the Westinghouse effort, and did so under the call 8ZZ. Shortly thereafter, Conrad's station 8XK/8ZZ became commercial AM broadcast station KDKA. His final amateur activity was during the 1921 "Washington's Birthday Relay," sponsored by the A.R.R.L. From then on, Conrad devoted his efforts to radio on an experimental, non-amateur basis for Westinghouse, finally retiring in 1940. [11] A detailed article about Conrad's early work as 8XK can be found in the A.R.R.L. archives in the September, 1920 issue of *QST*.

The first attempts at international shortwave broadcasting by Westinghouse were made in 1923 under the call 8XS located at Saxonburg, Pennsylvania, running low power. These tests were largely unsuccessful. [12]



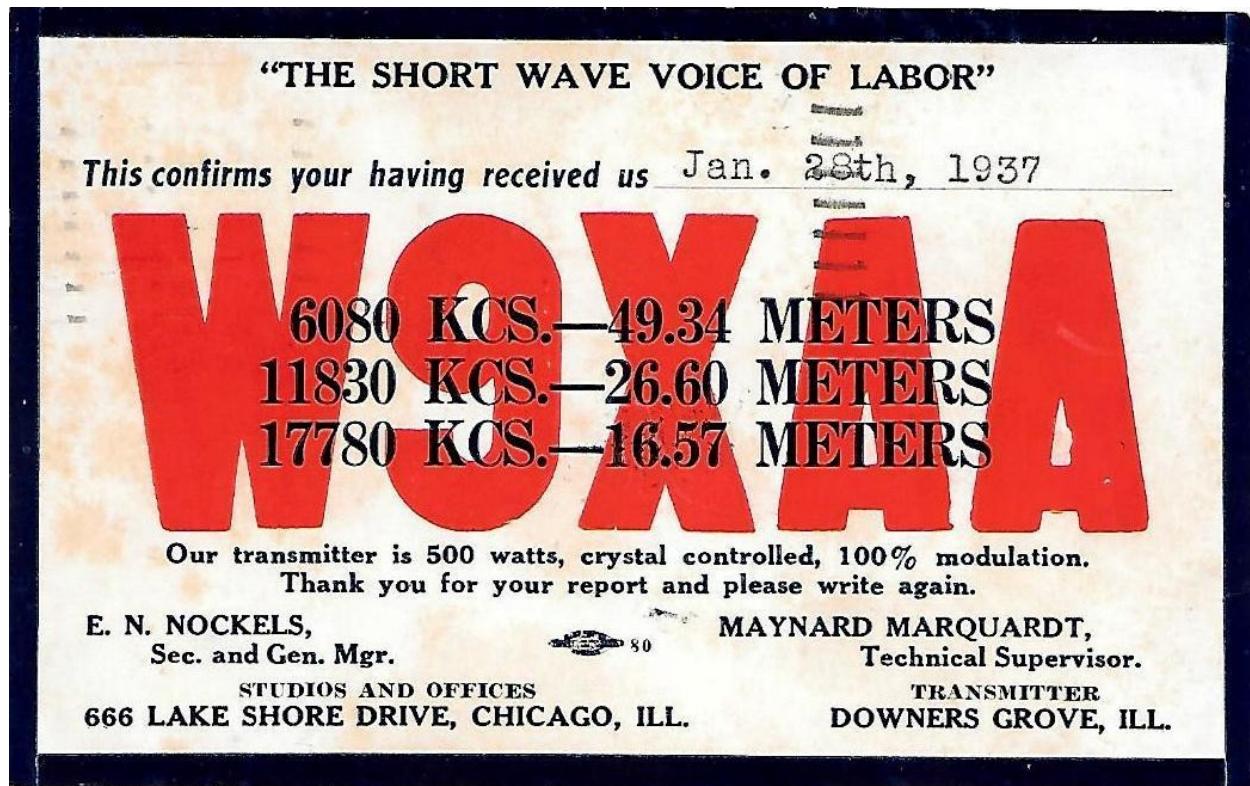
W8XK QSL card, mid-1930's

Image: Worthpoint.com

In 1928, this station would become re-licensed as W8XK, and enjoy a power increase to 15 Kilowatts. A total of four shortwave transmitters were installed at this site operating on different frequency bands. The station remained in operation under the W8XK call until 1939, when the call was changed to WPIT. Later in that year, Westinghouse moved WPIT from Pennsylvania to Hull, Massachusetts. By January, 1941 WPIT apparently went dark and was replaced by station WBOS and its power increased to 50 Kilowatts. One year later, WBOS was taken over by the O.W.I., and later the V.O.A., as was discussed in last month's column. [13] The call W8XK survives, however, as an amateur call. It now belongs to the Greater Pittsburgh DX Association. [14]

In 1928, television was being explored by adventuresome amateurs, experimenters, and commercial interests. Commercial AM broadcaster WCFL in Chicago was operated originally by the Chicago Federation of Labor, hence the call letters. In that year, WCFL went into the shortwave broadcasting business via early television experiments. The television transmission equipment was developed by A.J. Carter, an early experimenter. [15] By the early 1930s, they seem to have abandoned television experiments in favor of regular voice and music broadcasts on W9XAA.

Here's a QSL from that station dated 1937:



In 1938, the owners of W9XAA applied to the F.C.C. for transfer of their license to the Radio Service Corporation of Utah, operator of station KSL in Salt Lake City. In an F.C.C. Report [16] it is revealed that one of the stations frequencies, 17.780 MHz, had been unused for one year (possibly due to poor propagation of signals on that frequency) and additionally, that the station had been the subject of investigations by the Commission due to complaints of unresolved harmonic emissions. In both cases, these issues effectively disqualified the operators from further licensing; and consequently, of transfer of the station to the Radio Service Corporation of Utah. In any case, a decision by the F.C.C. in 1939 to no longer renew these experimental shortwave licenses made the entire matter moot, thus ending the career of station W9XAA. WCFL continues to broadcast, however, as a standard AM station, on a frequency of 1000 kHz with 50 Kilowatts.

Kansas State University was originally founded in 1863 as Kansas State Agricultural College. In 1931 it was re-named Kansas State College of Agriculture and Applied Science. As early as 1919, the college had established an amateur station having the call 9YV.

In 1932, as the result of efforts by the Electrical Engineering Department, a license was granted to begin experiments in mechanical television. The call was W9XAK.

The engineering staff of W9XAK, experimental visual broadcasting station of Kansas State College, wishes to acknowledge with sincere thanks your report on our transmission of *Dec. 19, 1934*.

SCANNING SYSTEM: 60 lines, 20 frames (disk speed 1200 RPM); scanning continuously left to right, top to bottom; images positive or negative per announcement. TRANSMITTER: Licensed power 125 watts; crystal controlled MOPA; Heising modulation; carrier frequency less than .03% off 2050 kc.

Remarks:

Date: 1-14-35 Signed: *PJ Kloeffler*
Scheduled transmission: Mon., Fri., 6:45-7:30 p. m. Wed., 8-9 p. m.
Tests are often made at odd hours.

W9XAK QSL dated January 14, 1935

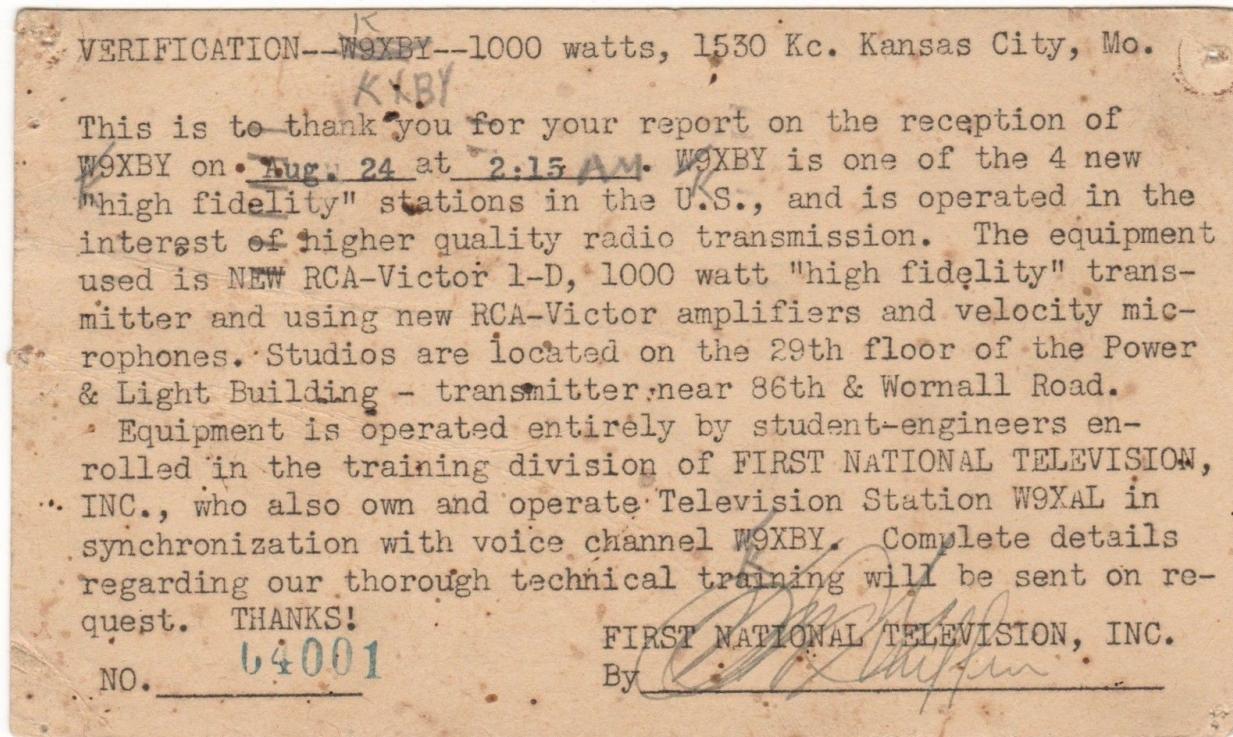
W9XAK operated on 2050 kHz using a crystal controlled transmitter running 125 Watts. Its first antenna was horizontal, but that was replaced in December of 1932 with a vertical, in order to reduce "ghosting" effects of the visual signal.

The mechanical scanning equipment was built by University staff, and signals were received in U.S. locations from Maine to Texas. Transmissions only continued until 1936, when interest in television evolved into experiments with video projection techniques. [18]

A very interesting account of these early efforts at the Kansas University by one of the original experimenters can be found at Note [19].

Meanwhile, in 1934 in Kansas City, Missouri, the F.C.C. granted an experimental license to First National Television, Inc. The call assigned was W9XBY. This station operated on a frequency of 1530 kHz with a power of 1,000 Watts.

Their QSL from August, 1934 declares that they were "one of the 4 'high fidelity' stations in the U.S., and is operated in the interest of higher quality radio transmission."



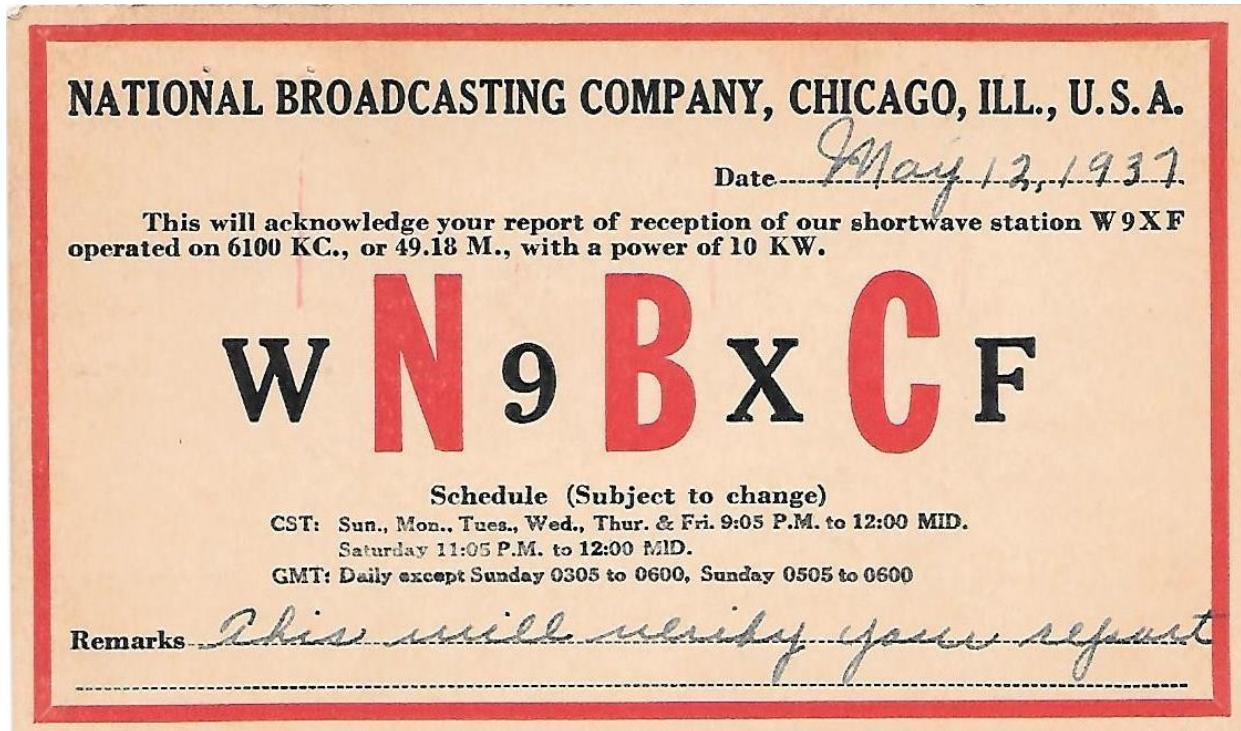
QSL from W9XBY, August, 1934

Their transmitter was an RCA model 1-D, using RCA amplifiers and velocity microphones. The antenna was a vertical. By 1937, the station evolved into commercial standard AM broadcaster KXBY. By 1940, the call letters had been changed to KITE, which ran 1 Kilowatt, but on a new frequency of 1590 kHz. Then, after a protracted litigation with its owner, who also owned KMBC, an attempt to sell the station in 1941 was not approved.

The station changed call letters to KXKX, but when the station's license came up for renewal in 1942, no one from the station seems to have shown up for their F.C.C. hearing. The owner, First National Television had by now, insufficient funds to continue in business, and the F.C.C. found them in default, thus ending their license and broadcasting career. [20]

In 1927, Chicago's N.B.C. affiliate commercial AM station WENR received a "special land station" license with the call 9XF. It first broadcast on the standard AM frequency of 1040 kHz. But plans were to ultimately use this license for shortwave broadcasting.

Final approval was granted by the Federal Radio Commission in 1929, with authorized frequencies of 6020, 11800, and 21500 kHz. By now, the call had changed to W9XF, with a power of 5,000 Watts. [21]



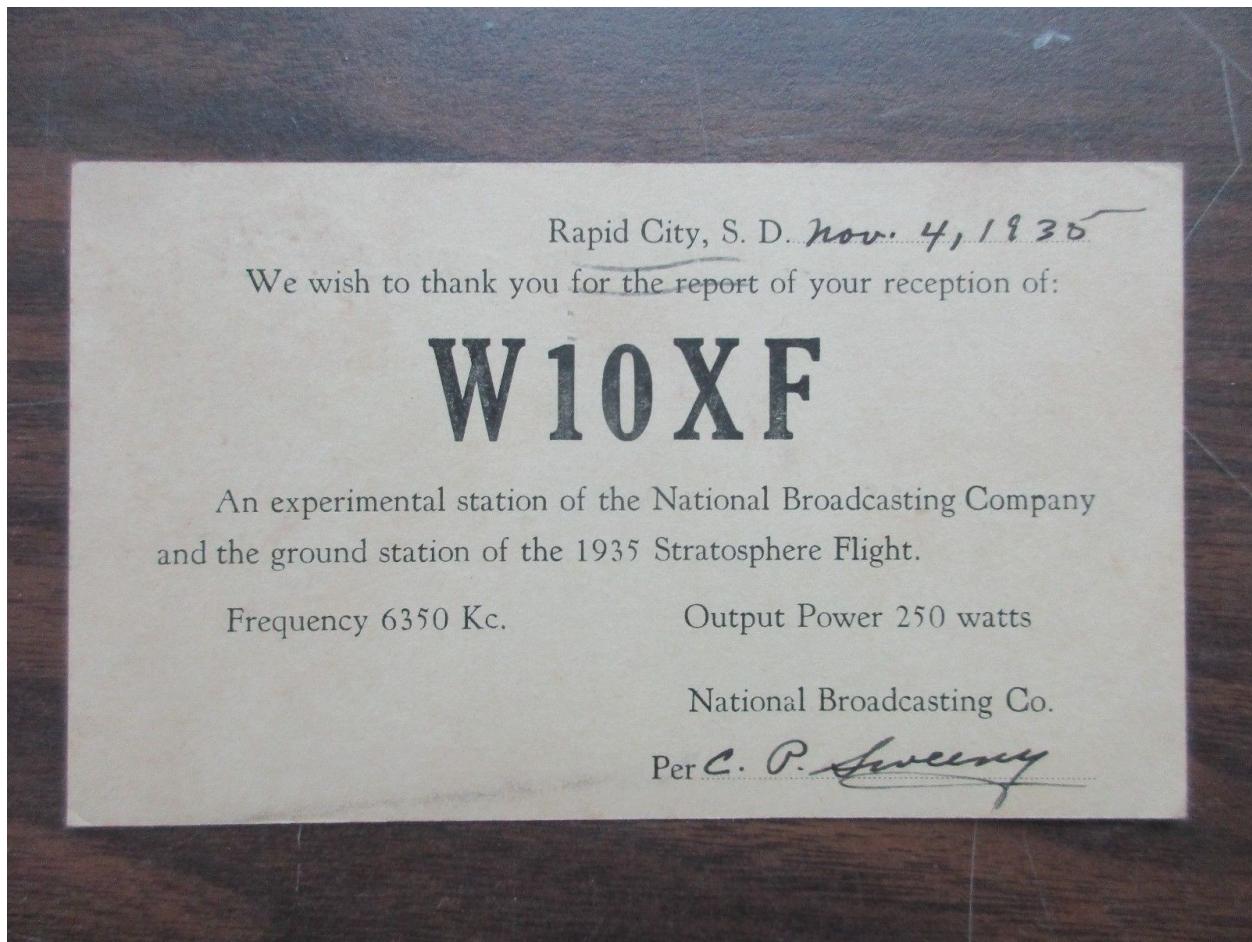
By 1930, W9XF received its farthest reception report, from Australia, for a relay broadcast of WENR on 6120 kHz. In 1933, a second shortwave transmitter was added having the call W9XQ. At about this time, the power level was increased to 10 Kilowatts, and the frequency changed to 6100 kHz. In 1937, an application was made to the F.C.C. for a further increase in power to 50 Kilowatts, but this request was denied.

The station continued in operation until 1938 when transmitters for standard AM stations WENR and WLS were re-located to Tinley Park, Illinois. The original transmitter site in Downers Grove was used for manufacturing during World War II, and finally closed in 1990. All buildings were then demolished and replaced with a housing development. [22] The call W9XF exists today as an amateur station, licensed in Oak Park, Illinois. [23]

We close this month's column with the story of a most unusual station. Its call was W1ØXF. Yes, there was a 10th call area in those days, before the Ø (zero) was used in amateur or experimental station calls.

W1Ø calls were issued to portable and mobile stations, whether ground based, marine, or airborne. According to the F.C.C., W1ØXF was the call of aircraft number X-855E. It was originally licensed to transmit on 400 kHz, 1608 kHz, and 6335 kHz. [24]

The "X" in the aircraft number signified "experimental." The experimental aircraft was, in fact, a stratospheric balloon which had been dubbed "Explorer I." It was operated by the National Broadcasting Company in Rapid City, South Dakota.



The QSL above actually confirms reception of a transmission on 6350 kHz, and is dated November 4, 1935. The station ran 250 Watts output during the 1935 Stratospheric Flight, which was co-sponsored by the National Geographic Society and the U.S. Army Air Corps. The call remained licensed to N.B.C. until at least 1947. [25]

Apparently, the efforts of Explorer I were not entirely successful. Two flights were attempted, the first ending in a crash in 1934. The second attempt also failed. Unfazed by this, another attempt was made in November of 1935, and the balloon was re-named Explorer II. The call sign of Explorer II was W1ØXFH. It operated on a frequency of 13050 kHz with a power of only 8 Watts. Because of the transmitter's low power, transmissions were re-broadcast on 6350 kHz by station W1ØXFN, and then relayed via shortwave broadcasters W3XL and W3XAL in Bound Brook, New Jersey for the N.B.C. Network. [26]

What became of the specially built 8 Watt transmitter used in the gondola? After the crash of Explorer I, it was re-built for Explorer II. Then it became the exciter stage of a 100 Watt transmitter used in a new aircraft, the China Clipper. With this change, the call sign was changed to WOEH for the aircraft's first flight across the Pacific. N.B.C. provided the crew of two – an engineer and an announcer to describe the flight. [27]

In 1936, the transmitter was installed in another plane, on a flight from Los Angeles to Alaska, and ending in Siberia. The pilot was Howard Hughes. Its next life was as the exciter unit for a 1 Kilowatt Navy transmitter. Each time, it was used to transmit news reports to N.B.C. headquarters in New York.

Eventually, it was retired from active service and placed in storage. After five more years, the little transmitter, installed in its 1 Kilowatt parent was moved again, this time to North Africa. In 1943, it was moved yet again, this time to Siracusa in Sicily to act as a local broadcast transmitter. Then, it moved again, to the city of Bari on Italy's west coast, and then moved again, this time to Naples for local broadcasting. But its travels were not yet over. It next went to Rome, to serve as a relay station for the Voice of America. Where is it now? No one seems to know. [28]

I'd like to think some historically-minded collector has retrieved it for safe keeping, but we may never know.

For a picture of the W1ØXFH balloon in which this little transmitter once whispered its low power signal to an anxious world, see below.

Until next month, 73...

Fred W2AAB

W10XFH



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NOTES:

[1] Amateur Radio Stations of the United States, Department of Commerce, Bureau of Navigation, Radio Service, June 30, 1921

[2] *Wikipedia* article, “Crosley Pup.”

[3] Miller, John, “Bonzo, a Crosley Pup,” *Antique Radio Classified, Web Edition*, at:
http://www.antiqueradio.com/Jul01_bonzo.html

[4] *Wikipedia* article, “Crosley Radio.”

[5] *Wikipedia* article, “WLW.”

[6] Ibid.

[7] Ibid.

[8] WLWO Promotional Brochure, at: <http://www.onthewshortwaves.com/Stations/WLWO.pdf>

[9] F.C.C. License listing for W8XAL, at:
<https://wireless2.fcc.gov/UIsApp/UIsSearch/license.jsp?licKey=3757330>

[10] *Wikipedia* article: “Frank Conrad,” at: https://en.wikipedia.org/wiki/Frank_Conrad

[11] Ibid.

[12] “Arcane Radio Trivia,” at: <https://tenwatts.blogspot.com/2009/10/8xk-8xs-w8xk.html>

[13] “KDKA SW Notes,” at: <http://durenberger.com/wp-content/uploads/2019/10/KDKA-NOTES-SW.pdf>

[14] F.C.C. License listing for W8XK, at:
<https://wireless2.fcc.gov/UIsApp/UIsSearch/license.jsp?licKey=2902299>

[15] “Early Television Stations – W9XAA, WCFL Chicago,” at:
<https://www.earlytelevision.org/w9xaa.html>

[16] *Federal Communications Commission Reports*, September 13, 1939

Continued on next page.

[17] "Early Television Stations – W9XAK, Manhattan, Kansas," at:

<https://www.earlytelevision.org/w9xak.html>

[18] Ibid.

[19] Personal correspondence of Walter R. Mitchell to Dr. Tracey of KSU, June 4, 1982,

at: https://www.earlytelevision.org/pdf/walter_mitchell_letter.pdf

[20] "History of W9XBY," at: https://www.qcwa.org/w9xby_station.htm

[21] Peterson, Dr. Adrian M., "Chicago on Shortwave: The Ten Year History of the NBC

Shortwave Station W9XF," *Wavescan*, May 19, 2013, at:

<http://www.onthewshortwaves.com/Wavescan/wavescan130519.html>

[22] Ibid.

[23] F.C.C. License listing for W9XF, at:

<https://wireless2.fcc.gov/UIsApp/UIsSearch/license.jsp?licKey=830480>

[24] Federal Communications Commission, *Radio Service Bulletin*, June 30, 1929, at:

https://books.google.com/books?id=IEU7597XcYQC&pg=PA10&lpg=PA10&dq=W10XF&source=bl&ots=8TIKU4E1KY&sig=ACfU3U2KafoR5RjKclnJ3a-aS3X-92LhXw&hl=en&sa=X&ved=2ahUKEwi7q9_Lz8DpAhXaI3IEHQs-BKMQ6AEwBHoECAkQAQ#v=onepage&q=W10XF&f=false

[25] F.C.C. Public Notice 96710, Sup. to Report No. 865 – Broadcast Actions, August 2, 1946, *Broadcast Actions by the Commission, Volumes 813-899*, at:

https://books.google.com/books?id=Vk7FrKuspo8C&pg=PT82&lpg=PT82&dq=W10XF&source=bl&ots=Ycqwyfa_vk&sig=ACfU3U3TwGdUn-OVJre4Y1wrNSVgilE-iw&hl=en&sa=X&ved=2ahUKEwi7q9_Lz8DpAhXaI3IEHQs-BKMQ6AEwBXoECAsQAQ#v=onepage&q=W10XF&f=false

[26] Berg, Jerome S., The Early Shortwave Stations: A Broadcasting History Through 1945, p. 121, at:

<https://books.google.com/books?id=XSWXAAAAQBAJ&pg=PA121&lpg=PA121&dq=W10XFH&source=bl&ots=qCL-gF6qYc&sig=ACfU3U2rpKvxffrwStIBGOhJIP747XqDA&hl=en&sa=X&ved=2ahUKEwiCyZ284cDpAhXXhHIEcy-BK4Q6AEwAXoECAoQAQ#v=onepage&q=W10XFH&f=false>

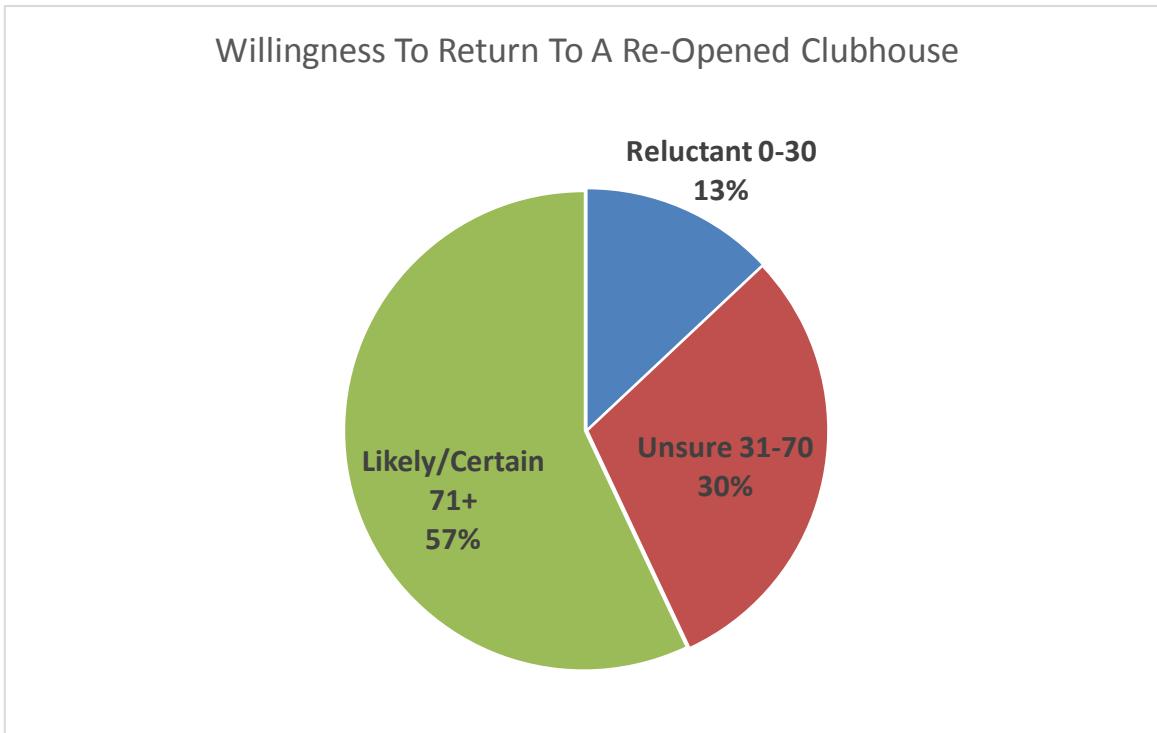
[27] {Author} "LC," "An Old American Transmitter in Italy (1943-1945), *Portale Italradio*, March 8, 2010, at:

<http://portale.italradio.org/index.php?module=News&func=display&sid=1699&lang=en>

[28] Ibid.

The FLARC Spring Member Survey: Will You Return When / If The Clubhouse Re-Opens?

The recent member survey asked about a member's willingness to return to the club on a 0-100 scale. This is predicated that if the coronavirus pandemic can be contained, the clubhouse may at some point receive permission to re-open from the state and borough with probable constraints on our activity such as limiting the number of people in attendance and required social distancing and/or items such as face masks.



Six in ten respondents say that they are likely/certain to return while one in eight are reluctant or not likely to return. Of the latter group, nine in ten are over the age of 60.



FLARC Proof Of Performance

Why is FLARC New Jersey's most exciting radio club?

Here are just a few reasons so far in 2019:

- Field Day at Memorial Park
- Winter Field Day
- World Amateur Radio Day special event
- Earth Day At Great Falls special event station
- Garretson House special event station
- Memorial Day parade public event
- Portable Day(s) with BARA
- Fair Lawn Street Fair(s) public event
- Independence Day Fireworks public event
- Vintage Night
- "Kids Day" public event with TCRA
- North American QSO Party
- NJ QSO Party
- Foxhunts
- Summer VANFEST at W2DLT
- Field Trip to iHeart Radio

Plus:

- Thursday Night open house and CW class
- Soldering classes
- RACES/ARES public service
- Monthly w sessions
- Projects such as end fed and 2m antennas
- Annual member interest survey
- Weekly Monday "Near and Far" Net
- FLARC auction
- FLARC Holiday Party free to members

Plus:

- Over 45 consecutive months of speaker programs including K1JT in 2019!
- New equipment in the shack!
- New antennas on the roof!
- Coming Soon: Tuesday evening and Saturday morning club openings
- And...a clubhouse!!

**That's why FLARC is the best club around!!
Join us with more activities, speakers and projects to come!**

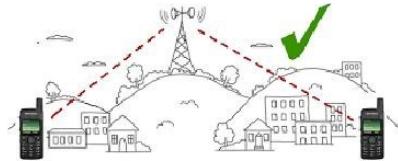
22 Things to do with a Technician License

By Robert Holstrom, KD2BKD, updated 4/9/2020

As new ham radio operators get their Technician license there are many different interesting radio activities they can do at reasonable costs. If these new operators are shown some of these different activities, they are more likely to stick it out into becoming General and then Extra class licensees.

Most everyone starts off with a simple HT 144/440 FM radio. Now they are less than \$75 and easy to learn how to program and use with the many repeaters in the area. This is not all one can do with them. Some interesting things one can do with a Technician License:

#1 – FM Repeaters, this is probably the 1st thing a new licensee uses.



#2 – FM Simplex, these radios can be used without repeaters, directly from one radio to another. The national FM call

frequencies are 146.520 & 446.00. Call out on these frequencies and see if you get a reply. Better yet go to a high elevation and call out. I have gone to Garrett Mountain for the 5 watt challenge sponsored by the Northern NJ ARES and received many contacts on FM with only a HT and yagi antenna mounted on a 15ft pole.

#3 – Fox Hunting (transmitter hunting) – Using a HT and directional antenna one can participate in Fox Hunting. There are other more complex systems that can be build but a simple home-made tape measure antenna will work just fine. This same antenna can be used for many other different radio activities.



#8 – Digital Modes – Mostly used on Side Band so a typical FM HT or mobile radio will not work. The radios that do side band typically do all mode and most also have HF capabilities. Some digital modes are, PSK31 (144.144), FT4 (144.170), FT8 (144.174, 50.313), MSK144 (144.360).

#4 – ARRL VHF Contest – The contests are in January, June, and September. 50MHz and above



frequencies. 222MHz is also commonly used. There are, Single Operator FM Only, Rover (mobile to go to different grid squares), Single Operator Portable (10w or less), and many other different categories. With just a 2m/70cm 20 watt FM mobile I took 1st place “Limited Rover” for NNJ a few years ago. I have since upgraded the rover for all mode 6m/2m/1.25m/70cm.

#5 – VHF Sprint Contests – Similar to the weekend long ARRL VHF contests but only 4 hours long on April weekday evenings (7:00 – 10:59) and only one band at a time.



#6 – SOTA (Summits On The Air) & POTA (Parks On The Air) – With those FM simplex call frequencies you can get involved in SOTA & POTA. It would be better with directional antennas, more power, and sideband operation, but it is possible. This is also a HF thing to do and may get the Technician to upgrade to be able to get more contacts.

#7 – Digital Radios – There are DIGITAL HT and mobile radios. There are several different digital systems types out there like; DMR, D-Star, System Fusion/C4FM. These radio systems can connect the repeater to different digital channels over the Internet. You can talk to people all over the world with this technology. There are “HOTSPOTS” you can purchase or build to be a low power personal

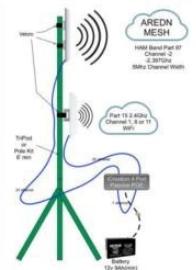
repeater to get you onto to the digital radio system network. Text messaging between radios is also possible with these systems. These newly developed digital radio systems are what today's younger radio enthusiasts may take interest in because of the digital technology involved over the internet. Some may say this is not “real” ham radio, but there is a radio component to this which may eventually bring them to other interests in radio to get their General and Extra licenses.



#9 – Community Service – Helping out at different community events with your radio skills like; Running Races, Bike Races, Fireworks, Parades, Klondike Derby, Etc.

#10 – EmComm – Emergency Communications – Many are aware of RACES, ARES, Red Cross, etc. who use FM repeaters and simplex for emergency communications.

#11 – Amateur Radio Mesh Networking – AREDN – It is a data network on UHF/SHF frequencies. Some things possible is to create a VOIP telephone system over the network and non-licensed users can use it. This includes VOIP applications on portable smart device (smart phone) and computers. CCTV can be passed and many other types of data and messages. The units are affordable at under \$100.00 and can have a direct line of site range in the miles. This may be very interesting to the younger crowd.



#12 – APRS – Automatic Packet Reporting System – An HT linked to a cellphone or computer can be used to send and receive packet data. You can even send emails. APRS is built into some higher end HT and mobile radios. It is a great system to use if ever going in the wilderness or other outdoor adventure as it can send GPS data back to the system. The APRS system is connected to the internet. This can be setup to work automatically to receive and transmit other packets to make the APRS system larger. Frequency used is FM 144.390. Listen in and you will hear the digital data.

SPACE RADIO – This consists of many different sub interests. This also relies on timing as the space



radios systems (ISS & satellites) are typically not in geostationary orbit. You will need to track the location with one of the many different tracking software available on computer or portable smart device. You should be able to use a directional antenna (tape measure yagi) and HT on high power. As the younger generations grew up in the space race these could be popular radio activities.

#13 – APRS to the ARISS (Amateur Radio International Space Station). The ISS has an APRS system (145.825 FM / 437.550 FM) which is operational at times. You can send your location along with messages to the ISS APRS system. You can verify your packet to the station over the internet and get a QSL card from the ISS. Maybe one of the astronauts will even reply to your message or someone else from a faraway land who also has communication with the ISS at that time.

#14 – There is voice frequency (144.490 FM) on the ISS that the astronauts may use during their down time. This time is typically from 0730 – 0830 UTC & 1830 – 1930 UTC. They will have to be overhead during this time and with require your directional antenna to be pointed properly.



#15 – At times the radio is set on the ISS to be used as a repeater (Uplink = 145.490 PL=67, Downlink = 437.800). This is like the many other radio satellites you can use as a repeater.

#16 – At times the ARISS sets the radio to transmit SSTV (Slow Scan TV) images from the ISS. This is typically used for special events on a frequency of 145.800. With the right application on a portable smart device and HT with tape measure yagi you can get these images on a good pass by putting the HT speaker near the microphone of the portable smart device. Computer and base radio with audio interface can also be used. QSL cards are available for receiving this type of contact.

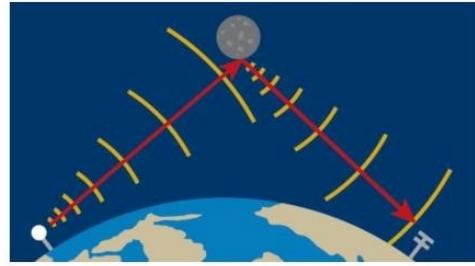


#17 – There are also many Satellites one can work. Many are FM 2m 70cm and others are sideband. With an HT and tape measure yagi you may be able to work many of these. Many Hams collect Satellite QSL cards and try to get as many grid squares as possible.

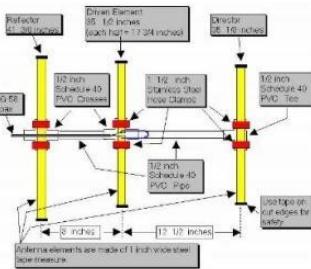


#18 – Moon bounce it a bit more complicated and will require more power than an HT and more

antenna than a tape measure yagi, but it is something a Technician class licensee can participate in.



#19 – Antenna Building – As VHF/UHF antennas are much smaller than HF antennas they are more easily to manage and build. The tape measure or other yagi, moxon, or log periodic antenna is good for EmComm, Fox Hunting, Space Radio, contesting, SOTA, POTA, and other radio activity. Many fold down or disassemble for easy transport. There are many other types of antennas one can build for VHF & UHF like Moxon, Loop, J-Pole.



#20 – EchoLink – Many repeaters worldwide are connected to the internet via EchoLink. There are applications for portable smart devices and computer. You can even connect via HT to an EchoLinked repeater and then with touchtone code have the repeater connect to another EchoLinked repeater. One could use their own computer with EchoLink software with a radio connected via audio interface to connect remotely to a repeater. This will allow others to use their EchoLink account from anywhere in the world to connect thru your computer and radio to the repeater. Do this only with the repeater managers permission.



#21 – AllStar Link – Similar to EchoLink to link repeaters, remote base stations, and hotspots via the Internet over VOIP (Voice Over IP Protocol) controlled by Linux based computer systems.



#22 – Raspberry Pi computers are used in many different projects in amateur radio.



Some examples are:

Digital Modes	Digital Radio Hotspots
Mesh-networking	APRS
Slow Scan TV	Satellite Tracker
EchoLink	AllStar Link
Software Defined Radio	and More...

There are other activities a Technician class licensee can do but this is a good start. I know for myself I have a list of future projects were my General license is not required.

What's The Racket On The W2NPT Repeater?

There was a lot of discussion and speculation on a recent daily net about the interference on the repeater ranging from digital signals, to cross-talk to UFO's (not really).

Licensee Trustee Paul W2IP later clarified what the cause of the disturbance was all about:

There is a lot of inaccurate info being spread about the "mystery" noise. The noise that comes through is from the NJ2BS repeater via the KD2BKD echolink connection. This problem is not on our side.

We had a similar noise on our repeater a few years ago. Not CW !! from the comments I'm hearing. I was not able to track its origins. That's when we eliminated the PL tone on the repeater tx side and seemed to remedy the issue.

A New Special Interest Group Now Being Formed By FLARC Members

As part of the 2020 FLARC Member Survey, a question was asked about what you wanted to learn more about in 2020 regarding radio.

One of the topics was "SWL and related topics." About a dozen members or so in total indicated a desire in learning and sharing information specific to this topic.

Both Dave N2AAM and Ed WX2R are organizing a special interest group (SIG) around this topic and started by renaming it "Radio Monitoring" to include all radio listening beyond just international or broadcast band DX'ing.

While we have just started to put this together, we're looking to set up a [groups.io](#) link within FLARC and perhaps get a speaker or two on the subject beyond just sharing our logs and discussions.

We'd like you to join us. Contact Ed (wx2r@arrl.net) or Dave (dmarthouse@gmail.com) to join up.

**SEE OUR INITIAL SIGN-UPS
ELSEWHERE IN THE RESONATOR!!**

FLARC Council Meeting Minutes 6 May 2020

President Nomar NP4H called the meeting to order at 6:00 p.m. on a conference call.

Secretary Randy WU2S called the roll of officers and trustees and all were present except Vice-President John W2JLH. The meeting had a quorum to conduct club business. President Nomar NP4H announced that he had John's proxy to vote at this meeting. John W2JLH joined the meeting later at 6:06 pm.

President Nomar NP4H announced that the Council would discuss the use of PayPal as a payment mechanism for FLARC annual dues. President Nomar NP4H moved that PayPal be used as another means for FLARC members to pay annual dues. Trustee Don K2PD seconded the motion. The Council discussed the pros and cons of using PayPal.

Upon concluding the discussion, President Nomar NP4H called for a vote on the motion. Six members of the Council voted in favor of the motion and one member voted in opposition to the motion. The motion passed.

The Council agreed to establish a procedure for PayPal payments to be accepted by the club's treasury. Having no further business, Ed WX2R moved to adjourn the meeting. President Nomar NP4H seconded the motion.

The Council voted in favor and the meeting was adjourned at 6:11 p.m. Respectfully submitted, Randy WU2S, Secretary

What Are You Doing For Field Day?

Since we will not be operating W2NPT from Memorial Park as in past years, Field Day 2020 is ala carte.

Let Nomar NP4H, Van W2DLT, or Fred W2AAB know of your operating plans and the club will look to coordinate efforts. There may be plans in the works for an intra-club mini contest so stay tuned.

In any case, you can still send in any operating logs to the ARRL—see QST or www.arrl.org for the details.

Don't forget to send any pix to The Resonator!

WHAT IS IT?



I recently saw a picture of one of these strange objects online, and wondered what it could be, and what it might be used for. I had several theories...

- It's a deadly cobra, ready to strike
- It's some other kind of venomous snake, as yet unidentified
- It's an alien, captured from Area 51
- It's a tiny loudspeaker for a "mobile device"
- It's some kind of strange insect
- It's a new type of hair clipper that barbers will start using when barber shops re-open
- It's a hand warmer used by Eskimos
- It's a miniature electric air purifier

Then, it hit me. I've got it! It's an electric shaver! But I won't ever use one of these, because it's probably made in China.

73,

Fred W2AAB
CW Ops #1449

Recent Field Days Gone By

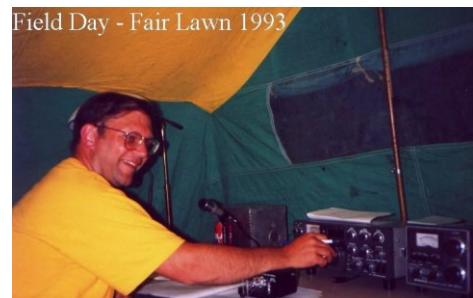


2019



Field Day - Fair Lawn 1991

Field Day Memorial Park 1991



Field Day - Fair Lawn 1993

Ed WX2R Field Day 1993

Recent Field Days Gone By



2017



2015

Field Days Gone By: 2015



Field Days Gone By: 2018



JUNE ARRL VHF Contest Coming Soon!

By Robert Holstrom – KD2BKD – update April 10, 2020

This year June ARRL VHF Contest is on the weekend of June 13 and 14, 2020. The contest starts at 1800 UTC Saturday until 0259 UTC Monday which comes out to be our time of Saturday at 2:00PM until Sunday at 10:59PM Eastern Daylight Time.

VHF contesting is like HF contesting but typically most communications are line of site. There are exceptions like 50MHz, 6 meters, which at times with sporadic E propagation can enable long distance communications as far as 1,600 miles. This typically happens between May and August so June fits right in between.



Different modes can be used during the VHF contest, FM, side band, CW, and digital. Some of these digital modes are FT8, FT4, PSK31, MSK144, FSK441, and JT65. More on digital modes later.



There are many different categories for the VHF contests. Some "Single Operator" categories are, Low Power (6m & 2m 200W / 1.25m & 70cm 100W / 902MHZ & above 50W), High Power (full legal limit), Portable Operation (10W max), 3-Band (6m & 2m 100W / 70cm 50W), and FM Only (6m, 2m, 1.25m, 70cm all at 100W). Most people have the required equipment to participate in some way in the VHF contest.

There are also "Rover" categories where one goes via mobile to different grid square locations. I like to participate as a "Rover" as it gets me out and about at high elevations in my Jeep. All rovers must travel to 2 or more grid squares. We are lucky in the NNE NJ as we are close to the intersection of 4 grid squares. A grid square measures 1-degree latitude by 2-degrees longitude or approximately 70 miles x 100 miles. The FLARC club house is just about 10 miles south west of the intersection of grid squares FN21, FN31, FN20, and FN30. To designate that a station is a Rover, "slash Rover" must be called out after the call sign. Many participants of the VHF contest like to hear that you are a rover and will ask when your next grid location will be and when you will get there. They get points if they contact you at each grid square location. All rovers must transport only one station and equipment used.





The standard Rover class can have 2 participants using high power any mode. If there are 2 participants or more the driver cannot use the radio while driving. They can use all bands allowed for the contest.

Limited Rover can only use the 4 lower bands (6m & 2m 200W / 1.25m & 70cm 100W) any mode. Two participants are still allowed, but driver cannot operate the radio while traveling. If there is only one participant they can use the radio and drive at the same time. This is the category I participate in alone and I do not contest and drive at the same time.

Unlimited Rover can have more than 2 operators and use multiple vehicles to transport the station equipment between grid squares.

Next are Multi-operator stations which are typically club stations. Unlimited in this category can use the legal power allowed with more than 4 VHF contest allowed bands. Limited in this category can use only 4 bands.

Scoring points is the same for Rovers and non-rover categories. The Multipliers are different. If you contact the same station on more than 1 band all the contacts count. Scoring goes as follows:

1 point – for each contact on 6m & 2m

2 points – for each contact on 1.25m & 70cm

3 points – for each contact on 902 & 1296 MHz

4 points – for each contact on 2.3GHs and higher

The multiplier for NON-ROVER is the total number of grid squares worked per band added together. Using only 2m & 70cm radio, if you worked FN20 & FN21 & FN30 on 2m there is 3, plus if you worked FN31 & FN21 on 70cm there is another 2. Add those together to get a multiplier of 5.

For a Rover the multiplier is the total number of grid squares worked per band, regardless of which grid square they were made from, plus an additional multiplier for each grid square worked from. Using the same numbers above plus the rover worked from 2 grid squares. The multiplier would be the same 3 for 2m and 2 from 70cm plus 2 more for the grid squares worked from gets a multiplier of 7. But remember that when a Rover enters a new grid square the scoring points start all over again for a rover so one can work the same stations multiple times and get points.



Back to Digital Modes. I personal have not used digital modes for VHF contesting but they are available. Some Digital Modes are FT8, FT4, PSK31, MSK144, FSK441, JT6M, and JT65. The digital modes are on sideband and require a computer with software like WSJT-X and audio interface.

FT8 and FT4 are now widely known and may require some special setting while used during the VHF contest. These modes are popular on 6m (FT8=50.313, FT4=50.318), 2m (FT8=144.174, FT4= 144.170), 1.25m (FT8=222.065), and even 70cm (FT8=432.065).

PSK31 (Phase Shift Keying 31 baud) is used for real time keyboard to keyboard chat. Frequency used are, 6m (50.290), 2m (144.144), 1.25m (222.070), 70cm (432.200), and 33cm (909).

MSK144 is used for meteor scatter communications and is an option in the WSJT-X software. With a small yagi pointed to the sky this can be done on 2m (144.360). 6m (50.0260) is also used. MKS144 is done by reflecting radio signals off the ionized trail of a meteor as it burns up while entering the atmosphere. Meteor trails are unpredictable, but there are times when these trails increase. The best time is early in the morning because the earth is rotating in the direction it is moving and therefore collides with more debris. Afternoon to midnight is a worst time as the opposite happens.

FSK441 and JT6M are other meteor scatter communications modes used in VHF/UHF frequencies. The frequencies used for 6m is 50.260MHz, 2m is 144.140, 1.25cm is 222.085.

JT65 is used for Moon Bounce and requires high gain directional antennas and a good amount of power.

This June I hope to hear some additional communications during the upcoming VHF contest. It does not take much to place for a certificate. Back in September 2017, with only FM mobile radio, I took 1st place as a “Classic Rover” for Northern New Jersey Section and 2nd for Hudson Division. Since then I have taken several 1st Place Northern New Jersey Sections as “Limited Rover”.



Dayton Hamvention Sighting – But Not This Year!!

Bob N2SU sent along a pix from Hamvention in 2017. That's him on the right with my longtime friend Bob Naumann W5OV from DX Engineering (he's the sales manager). Bob is originally from North Haledon and they've known each other since 1973. Let's hope for a successful Dayton in 2021.



Bob N2SU (R) at Dayton in 2017

Speaking Of Hamvention...

The Xenia (OH) fairgrounds may have been empty this year but there is *always* a contest for those in need.

The DARA Hamvention mini-contest had Fred W2AAB and Van W2DLT as the only FLARC participants in the "contest" and it was very low-key. It was on CW and Phone. Fred scored 118 points and Van spent about 2 hours and scored 68 points (this contest had NO multipliers, so scores were/are very low).

The Radio Monitoring SIG Now Has Some Members!

The newly created special interest group for all things radio such as scanners and short wave has the following interested participants: W2ABE, N2OEL, NP4H, N2AXX, W2TTT, KD2KLN, WX2R, N2CYY, N2AAM, KA2YRA, KB2N, KB2MOB, W2JC, KD2BRV, N2ECH and N2SU.

Want to join this SIG? Send an email with the Subject: "SWL YES" to wx2r@arrl.net and we'll add you to the group.

What Have You Been Doing During Month 2 Of The Covid-19 Lockdown?

Lee: KD2DRS -- A realigned radio strategy.

I purchased an Alinco DJ-G7 HT which is just awesome because it communicates on the faddish 1.2Ghz band. It also has a very wide listening ability and so it's easy to use it as a real scanner. Second thing I did was round up all of the gizmos I had but just wasn't using enough and sold them on Ebay: Kenwood DH-72A (such a complicated HT), Airspy, Hack RF One, Yaesu FT-900, my SWL SONY ICF-2010, and the Uniden BCT8. That was so successful I said why stop there? So, off went my KX2 along with some of the Elecraft niceties.

Once I had that bundle of cash reserves I set my sight on the KX3, purchased it from a Ham in Durham, UK and have really created quite a relationship via Facebook IMs with him. In fact, if there's been one thing that has rung true during all of these financial transactions it's really how caring Hams are. I had really great messages from a buyer, a guy at Fort Stewart, trying finally to get that ultimate real dual bander to land his first QSLs with a satellite via the Kenwood. The fellow who took possession of my 1980s obsession of SWL was in flattened Arizona, loved the reception and didn't care about the broken hinge stand on the back. The purchaser of the Airspy is in Canada and oh, what a big deal it is to sell via Ebay to there!

But the KX3 has arrived, a newbie, mint almost out of the Elecraft boxes complete with the 2M module, ohh so sweet. Now, I have only to get that 160M end-fed up in the air and sing my FT8 to world!



What Have You Been Doing During Month 2 Of The Covid-19 Lockdown?

Tom McCabe N2AXX and Ben McCabe W2AMP

Tom has been working a mix of activities including OEM, BC-RACES, and FLARC's 6 meter Kawfee Tawk Webinar.

Great 6m VHF Sprint activity on May 9th. Not a favorite mode, however, trying FT8 on 50.313 MHz. General HF SSB and CW contacts as always. Renewed interest in DSTAR and DMR and configuring the RF Shark OpenSpot for both modes. DMR BrandMeister Worldwide, TG91 net offers an interesting mix of DX check-ins Saturday afternoons starting at noon.

Thanks to KA2A for DMR *Elmering*. N2CYY and KD2BKD too! Keeping up with Ham Radio magazines and Public Safety Monitoring too. Looking forward to the ARRL's June VHF contest. YouTubers Ham Fest 2.0 May 23-24, 2020 was fantastic!

— • • • —

Ben: Since the start of quarantine I have been learning through virtual school and I must say it is an interesting experience. Something very different from what I am used to.

Besides that, last week I just took the AP Calculus AB exam and the AP Microeconomics exam online which were some of the toughest parts of my junior year in high school; but I am glad it's over now.

Since then, I have been spending a lot of time touching up my homebrew 3D-Printer and getting it up and running again.

Today I just finished a new project. Building my own mechanical QWERTY keyboard. I can't wait for the FLARC meetings to start back up again and to see all of your friendly faces.

Activities Of The Newly Created Radio Monitoring Group SIG

Dave N2AAM and Ed WX2R have met to begin to organize our little group and we'd like to pass along our thoughts and solicit yours to get started. Right now, we have about a dozen members and we're looking to welcome others.

Here's what's currently underway or planned:

- We are setting up our own email group within the club on groups.io.
- We're putting together our first video program, separate from that of the club, using Zoom. It will probably be in July at a date and time TBD and will be hosted by Dave N2AAM with the subject of radio monitoring.
- We're also scheduling other Zoom programs with some prominent speakers in the radio monitoring and/or international broadcasting field.
- We're also putting together resources about the subject of radio monitoring to keep everyone contemporary.
- Creating a monthly meeting schedule to keep us all in touch.
- From there, we will be looking to expand the group as best we can.

If you'd like to get actively involved with the group, let us know that as well. We will be discussing our plans with the club at the June business meeting and take things from there.

So in the meantime... Good listening!!

Dave N2AAM
dmarthouse@gmail.com

Ed WX2R
Wx2r@arrl.net

Theoretics Demystified

In the beginning there was lightening which was scary and powerful but useless to man except when he would use something burning from a strike to start a useable fire. But then after several millennium he learned that he could create the same phenomenon on a smaller but useful scale.

In the beginning of radio there was sparking used as a way of transmitting radio waves to a receiver at a distance. The spark transmitters generated damped, or decreasing in amplitude, waves which were ok for telegraph (on/off keying) messages but could not send tones or audio as they were not continuous but faded away rapidly. Each initiation of a spark signal lasted only briefly. The other problem was that the signal was broadband, that is, spread over a large portion of spectrum. (think auto ignition noise) Not to say that there are not uses of 'spread spectrum' signals today but those are infinitely sophisticated compared to simple spark transmissions! The era of spark was from 1887 when Heinrich Hertz built the first experimental spark gap transmitter till the end of WW1.

From there we progressed to the next phase of radio transmitting. The Poulsen Arc transmitter. Speaking of arcs, early lighting used carbon electrodes which were kept at a constant gap by a clockwork mechanism. Undoubtedly there was plenty of UV to cope with! Until somewhat recently carbon arcs were used for movie theatre projection and searchlights.

The Arc transmitter was invented in 1903 and was a kind of spark transmission but used an arc to convert high voltage DC (120-500v +) into radio frequency alternating current. There was an elaborate system of extinguishing and reigniting the arc (in later machines) as a way to produce the required alternating current and a required series tuned circuit resonant consisting of coils and capacitors to 'tune' the arc to the desired frequency. Elihu Thomson called it the singing arc as the earliest ones were limited to the audio frequencies.

Poulson raised the efficiency and frequency of the arc into the radio spectrum to about 200 KHz! Further development continued in Great Britain and Germany and in 1909 patents for the devices and a few arc transmitters were bought by Americans. Further development continued and the Federal Telegraph Company was formed which established a radio telegraph system that was then adopted by the US Navy.

Theoretics Demystified, cont'd.

The first experimental machines were small but the shore stations built for the Navy were monstrous. By 1918 some of the shore stations were as large as about 12 by 18 feet in size and weighed several tons, they dwarfed a man in size! They were rather complicated and cumbersome. Inside the machine there was a carbon electrode (cathode) and a water cooled copper anode which provided the means for the arc to burn which burned in a hydrogen gas atmosphere. There was also a magnetic field provided by external field coils with pole pieces projecting into the arc chamber. The antenna tuning was critical in order to suppress to some degree the resulting harmonics.

The arc transmitter lasted until the advent of the vacuum tube which resulted from the 'Edison effect' which Edison considered unimportant but was developed and capitalized upon by De Forest! With the development of tube powered oscillators, the spark and arc transmitters faded into history. Nowadays we have Bluetooth and Wi-Fi____33 transmitters smaller than a postage stamp. Spark and arc used extremely long wave lengths and Wi-Fi and Bluetooth use extremely short ones. From large antennas to infinitesimally small ones. There you have it, a brief history lesson in early radio.

DE Fred W2ABE

In A Nutshell

There are no Field Day, hamfests, parades or fireworks for now but things will eventually get back to some kind of normal. Many will work from home and that may be easier and safer and more cost efficient than traveling to a designated work site for those who work on computers anyway. Many have been working through all of this to keep the lights on, store shelves stocked and provide medical services on front lines of the battle waged against an invisible enemy!

We are slowly coming out of the self-imposed quarantine but need to remember that we still need to be careful and prudent about safety. Common sense is the key! Now is the time to get out in your yard and get some sun and fresh air but do it safely. Gotta get that sunshine vitamin D! There still may be hamfests later as things wind down. The good news is that possibly there may be a vaccine available by September. If there is anything to be learned, it is that it is not the equipment or the amount of contacts that is important, but the human contacts, either by radio, the Zoom format, or hopefully in person that matters. What is MOST important is each other as human beings, hams or members of a community! So get on the air and say hello. Right now propagation is iffy, but it is always worth a try.

DE Fred W2ABE

Fair Lawn RACES/ARES Corner

We are fortunate to make Fair Lawn and the surrounding communities our home. With our leadership and support from the FLARC we can grow and be of assistance in many community events. We are always seeking new members to join FL-ARES.

The Fair Lawn River Road Fair and the Independence Day Fireworks Celebration which FL-ARES would have participated in has been cancelled. Also, the Night Out has been postponed until October.

Please sign up for various nets and activities taking place at the following email address:

<https://arrl.volunteerhub.com/lp/nnj>

Info on FL-RACES is as follows:

Our next FL-RACES KB2FLR net will take place on Wednesday, June 10th at 1845 hours on the Fair Lawn ARC Repeater as well as the NJ2BS Repeater (frequencies noted above). Thank you to the Fair Lawn Amateur Radio Club for permitting FL-RACES for using the repeater.

FL-RACES is part of several RACES groups which operate within Bergen County and from time to time has training opportunities with Bergen County RACES.

During the COVID-19 pandemic, our monthly briefings take place during the FLARC business meeting. Please join us for the next FL-RACES briefing. The volunteer efforts of our members are very much appreciated.

If you are interested in joining the Fair Lawn RACES, please contact me. Anyone who's a licensed amateur radio operator may join Fair Lawn RACES and there's no residential requirement.

For information regarding Bergen County RACES, please go to <http://www.bcnjraces.org>.

Please be safe and well. Thank you very much. 73.

David KD2MOB

Paul Camella KC2WRT SK

The club regrets to note the death of club member Paul Camella KC2WRT of Woodcliff Lake on April 10th.

He was a volunteer on Woodcliff Lake's Community Emergency Response Team (CERT) and Deputy Coordinator of the Office of Emergency Management, a member of the Borough Council and numerous other volunteer positions.

We extend our condolences to his wife and family.

From The President, continued.

This year, for Field Day 2020 only, Class D stations may work all other Field Day stations, including other Class D stations, for points. Also, an aggregate club score will be published, which will be the sum of all individual entries indicating a specific club - similar to the aggregate score totals used in ARRL affiliated club competitions. I hope you join in the fun this year and participate in Field Day and contribute to the aggregate score count for FLARC.

And please, take pictures of your setup and send them to Ed, WX2R for publishing on the Resonator in July. John, W2JLH will be presenting shortly some suggested guidelines for FD 2020. Please keep an eye on it.

As always, wishing you ALL the best and "I'll see ya on the radio."

73,

Nomar, NP4H
FLARC President

Applause

Joe K2JK received an 8 band DXCC award, 10m through 80m. He also recently received a second Triple Play Award using 2 callsigns. Congrats!!

Around The Shack
by Hal Kennedy N4GG

Analog Has Its Place

Around the Shack for September, 2019 delved into the human-rig interface. I tried to make the case that a radio should be viewed as a back box with an analog input (antenna) and an analog output (audio). What happens inside the box is irrelevant as long as the box fulfills the purpose for which it is intended **and is easy to use.**

There are now digital modes however where the radio isn't communicating to our ears; it's communicating directly to a computer. The radio-to-computer interface can be analog or digital at this point in the development of technology – we are living at a time of transition. Most digital mode interfaces are still analog (analog audio from the radio to analog sound board input on the computer side) but that's changing. Purely digital interfaces will slowly replace analog interfaces and new radios are showing up with digital modes built in. I'm speaking here, of course, about the output signal of the receiver. The control signals for radios have been digital for nearly three decades. The protocol was RS-232 at first, now it's mostly USB.

Meanwhile we will always want to listen – at least a little. Your ears are analog – radios will continue to have analog audio outputs.

Besides listening to analog audio, there is a place where analog devices are superior to digital ones and sadly I see more and more of these analog devices being replaced by digital ones that don't do the job as well.

I'm speaking specifically about two pieces of ham shack test equipment: VOMs and Watt meters.

What's the problem with a digital VOM you might ask? The problem is it can be between difficult and impossible to see an intermittent connection on a digital ohmmeter. Intermittent shorts, opens and changes can come and go quickly - sometimes in a fraction of a second.

Over my 59 years of antenna and circuit troubleshooting, I've seen countless intermittent connections. Outdoor antenna connections swinging in the wind, intermittent coax connectors, bad solder joints. They can be long-lived, in which case they will show up on a digital meter; but digital meters sample periodically and then display. Many of them average their periodic readings as well. If an intermittent comes and goes in between the sampling events of a digital meter, you will never see it.

When using analog watt meters and VOMs, I look for needle twitches. Digital meters don't twitch. Things that come and go quickly are simply missed.

The above applies to all the VOM functions - voltage, resistance and current measurement. Wow, how many intermittent connections have I tracked down beginning around age 5 (1953!) when I was changing the plugs on toasters? Shorts and opens can be steady and easy to find, or intermittent and not seen with a digital meter.

Around The Shack, continued.

Have you ever considered that the S-meter in your rig is analog? Well-made radios still have real mechanical meters in them. My FTdx5000 has a real meter. The latest top of the line ICOM radios have real meters. Mechanical meters are expensive. Drop down a notch and the S-meter in my FT1000MP has a bar graph for an S-meter. The signals to turn the bars off and on are derived digitally, but the display is set up to appear analog. The bars go from illuminated to dark FAST. There is very little averaging going on.

Signal strength changes rapidly, and we would like to see the modulation on an SSB signal. An averaging digital meter reading out numbers provides you none of what you're looking for.

As we move further into digital and SDR radio territory, such as FLEX radios, there are still displays on your computer screen that appear to be analog S-meters. Figure 1 shows one of the many "S-meter" computer displays for FLEX radios. It should look very familiar. It looks about the same as the S-meter on an HQ-129X receiver from 1956. The signal for an S-meter is derived digitally in digital radios, but the S-meter reading is never displayed as a number. Why? It's simple. Sometimes you want to observe rapid changes and *digital displays simply don't do that*. If the display were numbers (digits), the numbers would be changing too fast to read them.



Figure 1. A typical analog S-Meter for a fully digital radio.



Figure 2. The \$9 analog VOM in everyday use at N4GG.

Digital watt meters don't display rapid or intermittent changes in SWR or power, just as digital VOMs don't display rapid or intermittent changes in resistance, continuity, voltage or current.

Figure 2 is a photo of the VOM in everyday use at N4GG. It cost \$9 at Lowes. Sometimes Harbor Freight gives these away for free! I prefer it to a \$200 DVM – it tells me more.

Figure 3 is my best, high precision volt-ohm-milliamp meter. It cost nearly \$100 and is analog by choice. I bought it when I started restoring tube radios – I needed a meter that could handle 1,000 volts.



Figure 3. The high precision analog VOM in use at N4GG

Around The Shack

But, there is a place for digital “meters.” They are great for measuring things that don’t change.

Figure 4 is a photo of the inductance/capacitance/resistance meter in everyday use at N4GG. These are often referred to as “LCR meters.” If I place a resistor across the terminals it tells me the resistance to several significant digits. I remember the color code for resistors, but it’s easier to put a resistor onto my LCR meter and read the value.

Resistors change with age too. I can pick that up on the digital meter and I won’t see it by simply reading the color code. I’ve never quite figured out the color code for small inductors, but my digital LCR meter reads inductance for me just fine. Figure 4 shows it reading a 10 uH inductor... the color code on the part baffles me.



Figure 4. The Digital LCR meter at N4GG.

So, what’s the bottom line? Analog displays have their place as do digital displays. The best human interface for a given task might be either. Thinking through the role of the devices in your shack – such as a wattmeter – may lead you to the conclusion that the analog S-meter for a FLEX radio is trying to tell you something. Analog has its place.

As an aside, I need to mention a problem with digital LCR meters such as the one in Figure 4. Meters of this type typically measure capacitance and inductance using a test signal around 1 KHz. For air-wound inductors that’s fine but for toroid wound inductors you may get a value at 1 KHz that’s far from the value at, for example, 14 MHz.

The indicated value may be worse than useless too. In addition to being off, sometimes off by orders of magnitude, it can be misleading if you don’t realize what’s happening. The ferrite core in an inductor has vastly different properties at 1 KHz than it does at 14 MHz.

When we are working at ham frequencies, 1.8 MHz and above, inductors need to be measured at or near the intended operating frequency.

That’s best done with an antenna analyzer such as an MFJ-259, or by building an LC circuit that you can measure with an antenna noise bridge or directly with a receiver.

How to do that is a story for another day.

73,

Hal N4GG

It's Time To Say "Good-Bye" If You Have Not Yet Paid Your Dues

The due date for member dues was extended to May 31st. But the calendar now says June and let's hope your dues have been received by our Treasurer, Al WA2OWL.

Dues remain at the same level as they have for many years while the club has grown in size and activities. Renewals are \$25 per year; new members are welcomed at \$20 per year.

So far this year we renewed nearly 85% of our 2019 members off a base of 160; about the same percentage as in 2018 with 145 members.

**Currently 135 members (84%) have renewed.
Thank you!!**

Dues can be mailed directly to:

**Al Rasmussen WA2OWL
10 So. Shore Road
Denville, NJ 07834**



If the pandemic has affected you and your household financially, let Nomar NP4H know confidentially at np4h@arrl.net to keep you on board.



FLARC "Year of Learning"

To be decided	How many ways do hams use CW ?	Fred W2AAB
To be decided	Logging and QSL Bureaus	Jim W2JC
What Can You Contribute To The Club??!!		

Ed - itorial:

So What Exactly Is A Club?

If you're like me lately you have gotten many invitations to join in on virtual clubs since the lockdown. Over a period of three days I've gotten invites from TCRA, Delaware Valley ARC, my old Addison County club in Vermont and the New England Vintage Electronics Club - among others.

Sitting in on some, I came back to the full realization that all clubs are tribes. We have our customs. We have our colors. We have our friends.

This pandemic will no doubt change the ways "tribes" operate in the years ahead. The emergence of the Zoom meeting, mandated social distancing and the reluctance and needs for those older/with afflictions will keep the usual face to face contact at reduced levels. Traditional clubs will have to consider the liability issues of exposing its members in meetings and activities, with Field Day an example.

We should be seriously considering what FLARC will look like when / if / how "normality" returns. For all tribes, the network is all important. How we redefine that network is now with us.

DE Ed WX2R

FLARC Spring Member Survey: What Have You Been Doing During Month 2 Of The Covid-19 Lockdown?

We've asked on the member survey what they have been up to radio-wise while waiting out the coronavirus. Here's what we've learned... more next month (but we hope to be free soon).

- Trying to concentrate on completing 12 meter WAS, and 12 meter DXCC so as to achieve 9 band WAS /DXCC. 12 meters has been DEAD for 3 months. If it was easy, anyone could do it.
- Recovering from having Covid; was in hospital for a month. Haven't done much of anything.
- FT8
- Testing different antenna configurations in my yard and operating more.
- New digital modes -- FLdigi and JS8.
- Chatting with other members of the upstate club I belong to.
- Experimenting with weak signal modes, ie. WSPR, QRP
- Getting a new radio under way.
- Trying to get people to operate under emergency conditions as a Network on voice instead of just QSOing to just to make a contact and helping or getting help to those people in need. Even if it's just to talk.
- VHF/UHF Repeater Activity.
- ZOOM meetings.
- Research and projects - Ham Radio related.
- Reorganizing and cleaning up my hamshack. Added some more goodies to the truck including a 175W solar panel & charge controller, a new antenna setup for 2.4 and 5 GHz AREDN Mesh and cellular, added a 115VAC 15A power input port, reworked the switch plate power feed for accessories; built about 90% of a new expanded Digital Operations Gobox, built up a few Raspberry Pi 3s for Allstar and a new iGate and Pi-Star hotspot and am currently working on some new gear setup for Amateur Radio and SHARES including an IC-7300 and an IC-9700. Also operating many nets including many of the Health and Welfare Net and rag chewing on 146.52.
- Working DX and nets.
- Checking on people to see how they are doing.
- Reading amateur radio content, watching more videos, working on building out my station.
- FT8
- Education and research

FLARC Spring Member Survey: What Have You Been Doing During Month 2 Of The Covid-19 Lockdown?

- Mainly participation on the nets sponsored by FLARC: Near and Far Net, Fair Lawn ARES/RACES Net & the Health and Welfare Net.
- Listening to all the nets
- 2 meters ... Health and Welfare Net, planning a new HF vertical antenna
- Active on the HF Bands, participated in contests as well.
- Using my hotspot and Yaesu Ft 70 .
- Listen mode on various frequencies
- Health & wellness net
- Mostly working CW and digital
- Built 3 VHF/UHF antennas and planning to put up an end-fed HF antenna.
- I have lost interest in the hobby over the past 4 months. There is not much a new person can do on their own without causing problems over the air waves.
- Installed new antenna and purchased 2 new radios.
- Trying to get up an antenna in an H O A
- Operated 40 & 20 CW
- Improving my CW speed with code practice and QSOs
- VHF and UHF simplex, VHF single sideband, some VHF nets, study for General exam, repair and maintenance on another club's 2 meter and 440 repeaters. Eat too much.
- Hfv digital, building state and country count. Building antennas.
- I still had to report to work every day. So, not much changed.
- Bought DMR ht ... learning about dmr, programming etc., and replaced a dipole and vertical antenna
- Purchased new HF rig. Operating in contests and chasing DX.
- Put up a big Yagi on my roof for 2m ssb, bought an FT-817 for QRP, and I'm building other antennas which I hope to have ready by field day.
- Using local repeaters and occasional listening on HF.
I have no really usable antennae up at the moment.

FLARC Spring Member Survey:

What Have You Been Doing During Month 2 Of The Covid-19 Lockdown?

- Programming a new user interface for the AREDN firmware
- Lots more activity. FT8 most of the time, and I do CW on the weekends in contests. Am looking forward to the CW WPX contest. Am on the H&W 2-meter net most nights. Adding to the digital DXCC and band-country numbers.
- DX on 17 m.
- Health and Welfare net (W2NPT)
- Studying for general, looking to do more emcomm.
- Trying to check into the Health and Wellness net every night at 7pm
- Installed my first antenna. Preparing to purchase a rig.
- Staying healthy, going for walks in the sun shine twice a day.
- Looking into a new antenna arrangement. Looking at a starting a HamClock project.
- Checking into the daily health and wellness net at 7PM
- 1) Upgraded station with purchase of new IC-7300;
2) Continued ARES Training with Fair Lawn ARES and Gloucester County (NJ) ARES;
3) Participated on occasion in FLARC nets.
- Research, planning, testing.
- Learning CW and improving my contesting skills.
- Repair of existing equipment and setup of equipment still in boxes
- Practicing my amateur radio operating and antenna building skills.
Learning how use my equipment and software.
- Occasionally participating in the daily Health and Welfare and weekly Near and Far Nets either by Echolink or HT
- The same as before the lockdown, I get on when I can
- Experimenting with different modes
- Working extra hours

FLARC Spring Member Survey: What Have You Been Doing During Month 2 Of The Covid-19 Lockdown?

- monitoring repeater and occasionally checking in on other members
- Putting up a new antenna.
- FT4/FT8 ... moved that stuff off IC-7000 and cheap pc onto Flex 6600 and newer PC
- much better results !!
- Some antenna work. Prepping outgoing QSLs of last year's DX log for outgoing Bureau. Club stuff, as always.
- H&W net, regular monitoring on W2NPT repeater.

Correspondence To FLARC On Our Health and Welfare Net

Dear Fair Lawn ARC,

My name is Bill, K4FZE and I am the president of the Greene County Virginia Amateur Radio Club here in central Virginia.

I have been informed by Ed KW4GF, our local Public Information Coordinator for the ARRL Virginia Section, that you were the first club in the nation to conduct a "Wellness Net" during the current virus pandemic. Congratulations on being first with your service. Our club was the second group to do a wellness net in the nation as we started on March 15th.

We are delighted to see our hobby being used for yet another worthy cause. Keep up the good work.

This is our reply to the Greene County Virginia ARC

Thank you for your congratulatory note to The Fair Lawn Amateur Radio Club on the creation of our Health and Welfare net and let us return the good words to The Greene County Virginia Amateur Radio Club on your complementary efforts in these difficult times in central Virginia. Ed KW4GF and I met on last night's ARRL Public Relations net and briefly exchanged notes regarding our individual efforts.

As you well know, northern New Jersey has been especially affected by this relentless virus. Our home county of Bergen, which is located just west of New York City, now has more than 15,000 reported cases claiming more than 1,000 lives. Our nightly net has attracted nearly 100 hams from across the country conveying both vital information and messages of personal support.

Your group's foresight and efforts in starting your net will not go unnoticed by our club. We commend you for your efforts in vital public service to your members and your communities.

73,
Ed Efchak WX2R
Public Information Officer, Fair Lawn Amateur Radio Club



Adventures in Quarantine — ALØY's CW Practice Paddle / Keyer

Learning CW is not hard, but it needs lots of practice. And this is one of the skills I decided to obtain during the stay at home quarantine for Covid-19. It was not long enough until I realized that not only do I need to practice copying code, but I also needed to practice sending.

This required a good key to play with. Most of the CW operators would say that using a straight key is the best way for operating CW. I will not argue this, as I am really just a beginner when it comes to CW. But I believe this is an extra struggle that we don't have to deal with when we are just learning the code. See, with a straight key you need to maintain a "good fist" and maintain a constant speed (words-per minute); otherwise you can mess up the meaning of what you are trying to send.

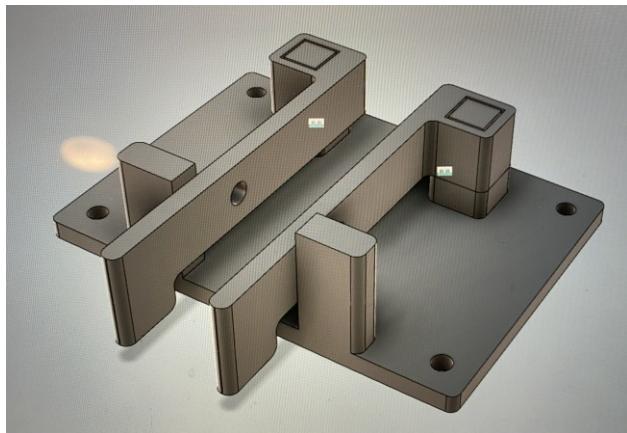
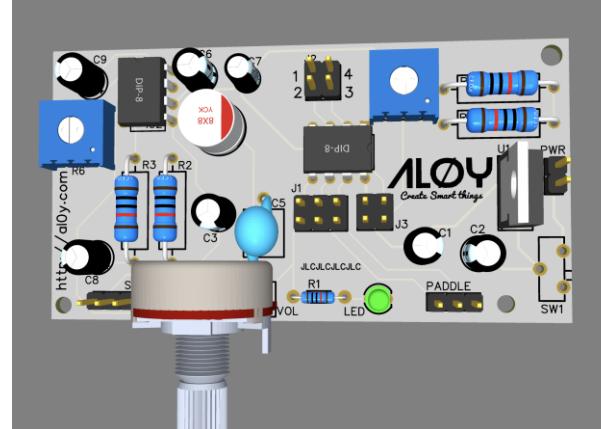
The solution? Iambic paddles.

An iambic paddle does most of the heavy lifting for you, and can get you up to speed in no time, as long as you have studied the code. But it's not easy to find a paddle to practice with. My ICOM IC-7300 (and I believe most modern HF radios) allows me to set it in full break-in mode where I can practice using the paddle on it without transmitting or keying up the radio.. but this also means, I have to power up the radio, listen to the background noise of the radio waves while trying to practice the code, and it's not a tiny thing to take with me to places (well, after the quarantine of course).

I was sure I was not the only one who had this problem and wanted a good solution for it. I decided to build my own fully customizable CW practice paddle.

It wasn't long until I came up with this circuit board that serves as the oscillator and speed maintainer for the practice paddle.

Using this board I can choose between 4 pre-set speeds (5, 13, 20, and 25 WPM) by simply shorting some jumpers. I can also choose if I want to set it as an iambic A or iambic B, and choose the tone and volume of the speaker.



The board is built using an ATtiny85 microprocessor to control the logic, and an LM386 as an audio amplifier to drive the speaker along with other filters.

Also, to keep it as simple and cost-effective as possible, I created a 3d-model of the paddle and 3d printed it. Although it can be used with any paddle.

I wanted to share this with the club as I am proud of this board and also I believe there are others who may find it useful for them to practice sending CW.

So, I am making this board available for those who may

be interested for only \$18 as a kit, or for \$25 as an assembled set (comes with the 3d printed paddle).

I am also donating two of those sets to the club so members can use and try them ... once the club is back open.

73 de ALØY (aly@alOy.com)

June 2020 Meeting Notes

President Nomar NP4H called the meeting to order at 7:30 p.m. on a video conference.

The group recited the Pledge of Allegiance.

Secretary Randy WU2S called the roll of officers and trustees and all were present. The meeting had a quorum to conduct club business.

Secretary Randy WU2S announced that the minutes from the May meeting were sent to all members of record and published in the club's newsletter, The Resonator, which is on the club's website at <http://newsletters.FairLawnARC.org>. He asked the members present if there were any corrections or amendments needed. There were none so Skip KD2BRV moved to accept the minutes as published and Judith KC2LTM seconded the motion. The motion passed by acclamation.

Treasurer Al WA2OWL read this month's Treasurer's Report. Jim N2JLF moved to accept the report as presented and Paul W2IP seconded the motion. The motion passed by acclamation.

Randy WU2S said that there is no Tech Committee report this month.

Ed WX2R reported for the Publicity Committee:

- All speaker programs and other public events are cancelled up to and including Field Day.
- We have done a press release for the re-start of the Kawfee Tawk series, with the next being for Bob KD2BKD on DMR fundamentals. Publicity Committee will circulate it locally and through the ARRL and on QRZ.
- We have publicized our Health and Welfare net and it has received mentions in the June issue of QRZ and a story also appeared on northjersey.com and local digital news sites.
- We will attempt to continue to publish The Resonator on a regular schedule.

June 2020 Meeting Notes

• Thanks to 82 members who completed the May member survey. Among the highlights:

1. 43% of respondents plan to operate during Field Day.
2. Of those who will operate, 8 in ten will operate from home with an equal split between emergency and non-emergency power.
3. 40% have operated more during the lockdown; and 12% less.
4. More than half of respondents have claimed to have checked into the nightly Health and Welfare net
5. 19 members have volunteered to be speakers for future Kawfee Tawks.
6. Nearly 60% of respondents say that they are likely or very likely to return (score of 70 or greater) to the clubhouse when/if it re-opens; 13% indicated that they will probably not return (score of 30 or lower).

Visitors, guests, and new members include Boguslaw KD2NRT and Gary WB2BAU.

Jim W2JC reported that the FLARC web site is kept current. He said that there was a problem with some of the website code and he is updating announcements manually. Subscribing to our **groups.io** is the best way to keep informed of all club info. Contact Jim at webmaster@FairLawnARC.org to learn how. Jim reported that there was no QSL card activity.

Thom W2NZ reported that our subscribers list on our YouTube channel increased by 12 in the past month to a total of 447. Thom appealed to all members to visit the FLARC YouTube channel at <http://youtube.FairLawnARC.org> frequently, view the episodes, give a "thumbs up" if you liked the video and add comments. All these activities will help drive up the ratings of our channel.

Continued on next page.

June 2020 Meeting Notes

President Nomar NP4H asked members to share FLARC videos with others on your social media.

David KD2MOB announced that the weekly Fair Lawn ARES net on Wednesday evenings moved to 6:30 pm on the W2NPT repeater. This earlier time will allow the new daily FLARC health and welfare net to start at 7:00 pm daily. He said that Jim N2JLF was net control for several recent sessions. David will consider changing the net schedule to avoid conflicts with the daily FLARC health and welfare net and the twice-monthly county RACES net. A schedule change may help increase net participation.

President Nomar NP4H said that he is discussing technical issues with linking the NJ2BS repeater to our W2NPT repeater. Nomar, Gordon W2TTT and Paul W2IP are trying to resolve the issues.

Vice President John W2JLH said that our plan for Field Day is to have individual FLARC members operate individually and aggregate those scores into a FLARC club score. John and JimW2JC will assemble instructions which explain how to do this. The guidance will be emailed to members and published in the Resonator and on the FLARC website. Members should consider using simple QSO logging programs from N3FJP, N1MM and others to facilitate logging their Field Day contacts.

President Nomar NP4H asked if there was any old business to discuss.

Gene WO2W reported that he talked to Jimmy Graff who said that the Fair Lawn Recreation Center and the Senior Center remain closed and that it is unlikely that they will reopen before July 1.

President Nomar NP4H reported that the FLARC Council approved using PayPal for the payment of annual dues. Treasurer Al WA2OWL said he received the letter from Jimmy Graff via Gene WO2W which stated clearly FLARC's association with the Fair Lawn Recreation Department, the borough's employer number and other pertinent information. Al submitted this to PayPal for approval but PayPal rejected the information without clear reasons for the rejection.

June 2020 Meeting Notes

A member gave Al a PayPal phone number so that he could attempt to resolve the issues with a customer agent. Al also reported that we have 151 paid members. Ed WX2R noted that this is a 93% renewal rate and is the highest we have ever been at this time of year.

President Nomar NP4H said we would conduct our "Kawfee Tawks" using a videoconference. The next to be scheduled is Bob KD2BKD who will tell us about DMR radios on Friday June 19. Charlie AC2ZU will conduct a talk on July 17. Nomar said we would consider doing the talks more frequently if speakers were available.

President Nomar NP4H thanked all who contacted FLARC members to assess their health and welfare. Jim N2JLF asked about Carole. Dave N2AAM reported that he spoke to Carole today and that she is doing well. Dave said that Carole has had a problem getting to the HT radio sent to her and that is why we haven't heard her on the repeater. Dave maintains frequent contact with her on the phone.

President Nomar NP4H asked for new business.

Dave N2AAM announced that he and Ed WX2R are starting a special interest group (SIG) for shortwave listeners. Dave is arranging an introductory talk on the subject to highlight what can be heard outside of the ham bands. He is locating additional speakers from the broadcast industry. Ed WX2R noted that the shortwave listener hobby is a good source of potential radio amateurs. If you are interested in learning more about the shortwave listener special interest group (SWL SIG), please contact Dave or Ed and let them know.

Ed WX2R announced that he is working on setting up other special interest groups based on the responses to the annual FLARC membership survey. The potential topics include:

- FT8 and other digital modes
- Raspberry pi and Arduino
- Radio propagation
- Software used by hams
- Kit building and construction
- Antennas and how they work

Continued on next page.

June 2020 Meeting Notes

If you are interested in presenting or participating in these topics, please contact Ed. (Reminder: the club roster, including email addresses, is at our groups.io group)

President Nomar NP4H thanked Dave N2AAM and Ed WX2R for taking the initiative to get these activities started.

Dave KD2MOB suggested doing a swap and shop net and Fred W2AAB suggested doing a technical net.

June 2020 Meeting Notes

Having no further business, President Nomar NP4H asked for a motion to adjourn. Dave N2AAM so moved and Judith KC2LTM seconded the motion. The members present voted in favor and the meeting was adjourned at 8:43 p.m.

Secretary Randy WU2S reports that 43 members participated in this video conference business meeting.

Respectfully submitted,
Randy WU2S, Secretary



Part of the attendance at the June 2020 "virtual" FLARC Business Meeting



June 19th at 19:30 ET -- Kawfee Tawk on-line with ZOOM

Intro to DMR Digital Mobile Radios
with Bob KD2BKD

See club calendar for details -- <https://groups.io/g/FairLawnARC/calendar>